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## ORGANIZATION OF THIS MANUAL

The *Landscape Code & Policy Manual* is organized into four units and a non-regulatory, supplemental *Signature Landscapes Design Manual*.

**Unit One - General Information** contains the objectives and definitions; information about the applicability of the Code; and plan, submittal and compliance requirements.

**Unit Two - Plan Requirements** for Signature Landscapes contains the Signature Landscapes framework and plan requirements pertinent to all development sites.

**Unit Three - Site Category Requirements** specifies the requisite site categories to be landscaped and the quantitative requirements for each.

**Unit Four - Appendices** contains plant lists, maps, planting details, formats, submittal forms, and affidavits.

The *Signature Landscapes Design Manual* consists of non-regulatory, supplemental descriptions, maps, graphic charts, plant community lists, design tools, and resource information.

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## DOCUMENT LAYOUT

This manual contains the Landscape Code (“Landscaping Standards”) from Article 4, Part 3 of Chapter 7 – Planning, Development and Building. *Landscape Code excerpts are identified by Code Section numbers and are printed in serif type.* The landscape policies, procedures, standards, and related details for each issue or site category are designated by Policy numbers that correspond to Code Section numbers of the Landscape Code, and are printed in sans serif type.

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## INTRODUCTION

The development pressures of the last decade have had a marked effect on the livability of the City and the awareness of its citizens about the combined issues of growth, transportation impacts, open space preservation, and infrastructure needs. The rapid development of our lands, especially undisturbed areas, has increased the community’s concern for the loss of our indigenous

landscapes. The current challenge is to link our rapidly disappearing natural setting with the developing urban context; and to identify and implement such a vision for our community in its “built out” state.

Colorado Springs is situated in a semiarid area 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, maps, explanatory graphics, and plant lists that are embodied by the term “Signature Landscapes”. The manual supplements the Landscape Code and should serve as a catalyst for innovative approaches to landscape design.

It is the premise of the Signature Landscapes framework that landscape development consistent with the climatic and soil conditions of this region will be the most successful and sustainable. It follows that these landscapes will reflect the prevailing semiarid conditions and therefore the policies, with respect to required plan submittals, are consistent with the principles of Xeriscape.

The 1998 Landscape Code and Policy Manual revisions are responsive to community concerns that have been expressed in the Water Resources Plan for 2040, an ongoing public process. 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 the Landscape Code and all policies with regard to required landscaping of applicable public and private property, and public rights-of-way. It is one of several recent environmentally based regulations developed by the City. The principles and standards included are valid for all landscape design; however, this document does not apply to individual single or two-family residential lots. Additionally, a non-regulatory, supplemental *Signature Landscapes Design Manual* is enclosed that provides more detailed design resources.



UNIT ONE —  
GENERAL  
INFORMATION

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**I N T E N T   A N D   P U R P O S E**
**Chapter 7, Article 4, Section 301**

The purpose of this Part 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.

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**O B J E C T I V E S****Chapter 7, Article 4, Section 302****A. Water Conservation:**

Conserve potable and nonpotable water resources through:

1. The use of Xeriscape principles;
2. The use of site-specific plant material matched to the soil type and microclimate;
3. The conservation of indigenous plant communities;
4. The promotion of landscapes that require minimal supplemental irrigation; and,
5. The establishment of minimum standards for the selection, installation and maintenance of landscape materials, and for site grading and irrigation systems.

**B. Aesthetics:**

Enhance the regional landscape character of the City through:

1. The incorporation of native and compatible introduced plants, plant communities and ecosystems into landscape design;
2. Encourage the incorporation of open space in ways that harmonize and enhance the natural and built environment;
3. Enhance the streetscapes along the City's public rights-of-way with an emphasis on trees;
4. Define and separate vehicular and pedestrian traffic areas;
5. Screen the appearance of motor vehicle lots from public rights-of-way and adjacent properties;
6. Screen objectionable and higher intensity uses from lower intensity uses; and,
7. Enhance the appearance of structures.

**C. Environmental Quality**

Improve environmental quality through the beneficial effects of landscaping, which include:

1. Air purification, oxygen regeneration, wind reduction, groundwater recharge, stormwater detention, and permeable land surface maintenance.
2. Mitigation of the urban heat island effect through evapotranspiration and the creation of shade; and

the reduction of heat and glare through biological filtering.

3. Conservation of native plant communities, significant vegetation and natural features.
4. Reduction of soil erosion caused by storm water runoff.
5. Reduction of air, water and noise pollution through the reduced mowing and fertilization requirements of limited turf areas.
6. Provision of ecological diversity and richness that furnishes habitat for species not otherwise found in urban environs.
7. Minimization of fire danger through improved design and maintenance.

**D. Horticultural Sustainability**

Design, install and maintain landscapes suited to local soil, climatic, and on-site conditions for improved plant growth and survivability.

**E. Human Values**

Make the City more attractive through the physical and psychological benefits of landscaping that softens 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.

**F. Land Values and Investment**

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, an important factor in attracting economic development.

**G. Nuisance Species Control**

Control certain exotic plant species that have a negative effect on public health or degrade native ecosystems.

**H. Improved Design**

Create an awareness of regional plant communities, soils, and practices that contribute to water and energy efficiency; and encourage innovative, long-range and cost-conscious approaches to landscape design.

**I. Administration and Enforcement**

Establish procedures for the administration of revised landscape regulations, and provide knowledgeable staff review and assistance. Provide efficient and timely review of plans and enforcement of requirements, and ensure fairness and due process.

## DEFINITIONS

### Chapter 7, Article 4, Section 303

**American Society of Landscape Architects:** A national membership organization formed to advance the professional practice of landscape architecture.

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

**Bachelor or higher degree:** A four-year degree or master or doctorate degree from an accredited college or university in the United States.

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

**“Borrowed” native plant:** A species that is indigenous to a regional native plant community, however, it does not occur naturally in that same community within the Colorado Springs City limits.

**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.

**Compatible plant:** A species with genetic or ornamental properties and physiographic requirements that closely resemble those properties and requirements of a plant in a specific regional native plant community or of a plant that is historically adapted to that community.

**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.

**Cultivated vegetation:** Living plant cover that is fostered for horticultural purposes and is suited to the growing conditions of Colorado Springs.

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

**Double frontage lot (also known as through 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.

**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.

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

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

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

**High-water-use turf:** Turfgrass that requires fifty to eighty percent (50% - 80%) of reference evapotranspiration to maintain optimum appearance; or turfgrass that has an exceptionally high water requirement to prevent dormancy, typically twenty-five inches (25") of supplemental irrigation during each annual growing season in Colorado Springs.

**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 Association:** A non-profit, North American organization formed to improve the products and practices used to manage water resources and to help shape the business environment of the irrigation industry.

**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 diagrammatically, 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 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 Code:** A Part of the Zoning Code, which is part of the City Code of Colorado Springs.

**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 grading plan:** A plan drawn to scale that shows the designed landscape gradient and elevation using contour lines or numeric notation of elevations.

**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 art work, screen walls, fences, or benches.

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

**Landscape Policy Manual:** A document containing policies, procedures, standards, maps, and plant lists necessary to implement the Landscape Code of the City of Colorado Springs.

**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.

**Local native plant community:** A plant community that is indigenous within the Colorado Springs City limits.

**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.

**Motor vehicle 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 plant:** A species that is indigenous within the Colorado Springs City limits and naturally occurring in one or more plant communities.

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

**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 (also known as parking):** That portion of the public street 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.

**Plant community:** A natural association of vegetation that is dominated by one or more prominent species, or a characteristic physical attribute.

**Practical turf areas:** A landscape design and management concept promoting turf only in those areas of the landscape that are functional, and the efficient management of supplemental irrigation required in those areas.

**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.

**Reference evapotranspiration:** The evapotranspiration of a broad expanse of well-watered, 4-to-6 inch tall cool-season grass.

**Regional native plant community:** Any plant community with a geographic distribution indigenous to all or part of the Front Range of the Southern Rocky Mountains.

**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.

**Screen:** 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.

**Signature landscapes:** Landscape development consistent with local climatic and soil conditions and that evokes the aesthetic and ecological qualities of regional native plant communities.

**Signature plant:** Vegetation designated in Appendix B of the Landscape Policy Manual as native, "borrowed" native, historically adapted, or compatible in a specific regional native plant community of Colorado Springs.

**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 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 right-of-way:** The area of land designated for streets, sidewalks, utilities, and public use.

**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.

**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.

Other definitions are provided in Section 7.2.201, "Definitions", in the Zoning Code.

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## LANDSCAPE POLICY MANUAL

### Chapter 7, Article 4, Section 304

City Planning is hereby authorized to adopt a Landscape Policy Manual containing policies, procedures, standards, maps, plant lists and other provisions necessary to implement the provisions of Section 7.5.11 (Administrative Relief), Section 7.5.1206 (Non-Conforming Landscaping and Parking), and this Section 7.4.301 through 324 (Landscaping Standards), all of Articles 2, 3, 4 and 5 of Chapter 7 (the Zoning Code) and Chapter 4, Article 4, Section 301 through 306 (Street Tree Fee, Fund, Planting Requirements) of the City Code.

## APPLICATION OF LANDSCAPING REQUIREMENTS

### Chapter 7, Article 4, Section 305

Except as otherwise provided by Subsection B of this section, the landscaping requirements of this Part shall apply to all land public, institutional and private located within the City of Colorado Springs. These requirements shall specifically apply to:

1. All new construction;
2. All currently approved development plans that are changed by a major amendment subsequent to the effective date of this ordinance;
3. All construction projects that cumulatively increase the gross floor area of the lot by fifty percent (50%) or more subsequent to March 11, 1986;
4. Any relocation consisting of fifty percent (50%) or more of the existing gross floor area;
5. Any change of use that results in the conversion of single or two-family residential use to multi-family or nonresidential use;
6. The conversion of vacant land to nonresidential use that does not involve the construction of a structure; and,
7. The total redevelopment (demolition and new construction) of a lot.
8. All government and utility service property zoned PF (Public Facility).

#### A. Exempt Property:

None of the landscaping requirements of this Section, except as specified in Subsection C of this section, special requirements, shall apply to:

1. An individual detached single-family or two-family residential structure on its own lot;
2. Any valid, unexpired development plan approved prior to the effective date of this ordinance, for which there is neither a change of use nor a major amendment to the plan;
3. Any temporary event approved in accordance with the City Code;
4. A site on which cumulative increases to the gross floor area of an existing structure constitute less than fifty percent (50%) of the existing floor area as of March 11, 1986;

#### B. Special Requirements

The following requirements shall apply to single-family and two-family residential projects on a subdivision-wide basis:

1. Restrictive Covenants Requiring Turfgrass Prohibited

The water demand of traditionally used turfgrass results in an extraordinary burden on the City's water resources. Therefore, any restrictive covenant that becomes effective on or after November 1, 1998, and that requires cultivated vegetation on property maintained by an individual property owner, shall not specify that any portion of said vegetation must be turfgrass. This provision shall not restrict the individual and voluntary use of turfgrass on a detached single-family or two-family residential lot.

2. Double Frontage Lot Streetscapes: Double frontage (through) lots are regulated by the Subdivision Code. The required setbacks and landscaping are prescribed in this Part and the Landscape Policy Manual. Where double frontage lots are approved as part of a development plan or plat, installation of the required streetscape, including irrigation system, plant material, fence and sidewalk shall be the responsibility of the developer. Maintenance shall be the responsibility of a homeowners' association of a special improvement maintenance district (SIMD) and shall be so noted in the recorded covenants and on the subdivision plat(s). Establishment of a landscape easement with individual lot owner responsibility shall be not acceptable.

**3. Common Areas**

Landscaped common areas, such as entrances and non-arterial medians in single-family and/or two-family residential projects shall be the responsibility of an SIMD or homeowners association, and shall be so noted in the recorded covenants and on the subdivision plat(s).

- 6. The granting of Administrative Relief should not always mean that a requirement is reduced without compensation. For example, the granting of a reduced setback depth should be compensated by the planting of additional shrubs or other plants.
- 7. A decision regarding Administrative Relief may be appealed to the Hearing Officer in conformance with the requirements of 7.5.907 of the Zoning Code.
- 8. Some degree of administrative relief may be anticipated in the following districts:

**Central Business District:**

The Central Business District shall be subject to the landscape requirements of the Zoning Code and Landscape Policy Manual. However, standards or requirements that may be inapplicable or inappropriate may be reviewed by the City for flexibility in the application of administrative relief.

**Hillside Area Overlay District:**

Section 7.3.504 of the Zoning Code contains additional objectives and requirements that are specific to certain areas of the City that are characterized by significant natural features, which include ridgelines, bluffs, rock outcroppings, vegetation, natural drainageways, wildlife habitat, geologic conditions and slopes that contribute to the attractiveness of the community. Administrative relief may be necessary to provide for flexibility and compliance that is consistent with the intent of the Code.

**Historic Preservation Overlay District:**

The City recognizes the value of historic resources both in terms of structures and cultural landscapes that reflect a historic period, the work of a notable designer or a site of historic importance. Administrative relief may be granted for individual projects in historic districts and in the redevelopment of historically or culturally significant projects. Administrative relief shall be granted consistent with Section 7.3.505, Historic Preservation Overlay, of the Zoning Code.

- 9. An example of requests for Administrative Relief is provided in Appendix L.

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**LANDSCAPE ADMINISTRATIVE RELIEF**

**Chapter 7, Article 4, Section 306**

The purpose of this Section is to provide for flexibility in the application of landscaping regulations when a standard is inapplicable or inappropriate to a specific use or design proposal, or when a minor problem arises with the strict application of development standards. Some degree of administrative relief may be anticipated in those districts noted in the Landscape Policy Manual. Should findings justify the granting of administrative relief, the findings and relief shall be consistent with Administrative Relief, of this Zoning Code, and with the policies and procedures of the Landscape Policy Manual.

**Policy 306.**

- 1. The written request for Administrative Relief in conjunction with a development plan, minor development plan, or building permit site plan shall be submitted to the City planner reviewing the plan.
- 2. City Planning shall not render a decision on Administrative Relief. City Planning shall limit their review to compliance with the Zoning Code requirements.
- 3. The designated planner should render a decision on an Administrative Relief request within three (3) days after receipt of the request and complete information.
- 4. City Planning recognizes that the specific landscape requirements in the Zoning Code and Landscape Policy Manual cannot and do not anticipate all possible landscape situations.
- 5. Compliance with the requirements should not be forced into a site design. For both visual effect and ease of maintenance, relatively few and larger landscape spaces integrated with the other elements of the site design are generally encouraged. Relatively numerous and smaller landscape spaces not integrated with the other elements of the site design are generally discouraged.

**ALTERNATIVE COMPLIANCE****Chapter 7, Article 4, Section 307**

The regulations, standards and policies contained in the Landscape Code and Policy Manual are to facilitate development that is consistent with the City's landscape objectives. The requirements are intended to foster creative design, but not to invoke an inordinate hardship where compliance as outlined in the Landscape Code and Policy Manual is either impractical or impossible. The procedure and criteria for Alternative Compliance are established in the Landscape Policy Manual.

**Policy 307**

1. Alternative compliance is a procedure that enables a development to occur where the intent of the Code is met through an alternative 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.
2. A pre-submittal conference is required to determine the preliminary response from City Planning. Should the development/site plan include a request for approval of Alternative Compliance, sufficient explanation and justification, both written and/or graphic shall accompany the submittal.
3. An application for Alternative Compliance, as a comprehensive form of Administrative Relief, may be submitted provided the proposal meets one or more of the following criteria:
  - A. The site conditions, including but not limited to topography, soils, natural water features, significant vegetation, wildlife habitat, or issues of environmental quality may be better addressed and the intent of the Code better realized through the alternative proposal.
  - B. The landscape areas of the project site are unusually shaped so as to result in space limitations that are deleterious to the health or growth of plants, safety and/or visibility, or for which alternative construction and installation techniques must be used.
  - C. The neighborhood context, historical setting or vegetative quality of the site will be better served by an alternative design.
  - D. The alternative compliance proposal meets the Objectives of Zoning Code 7.4.302 in a manner equal to or better than compliance with the regulations contained in the Code and Policy Manual.

4. Alternative Compliance shall apply to the specific project for which Administrative Relief is requested and does not establish a precedent for assured approval of other requests.

**REQUIRED PLAN SUBMITTALS AND REVIEW****Chapter 7, Article 4, Section 308****A. Required Plans**

When landscape, landscape grading, and irrigation plans are required as part of the development application, the plans shall contain the information listed below, and any additional information as determined by City Planning, Hearing Officer, City Planning Commission, or City Council to enable them to determine whether the plans should be approved.

**B. Application of Requirements**

Documents shall clearly and completely describe the design and any techniques and features provided to implement the design and Landscape Code requirements.

Where a calculation of a requirement results in a fractional number (such as 14.2 required trees), the requirement shall be considered the next greatest whole number (such as 15 required trees).

Where two (2) different landscape requirements apply (for example, a buffer and a landscaped setback), the greater requirement shall be met (for example, the buffer).

**C. Conflicts**

If any provision of this Part conflicts with any other ordinance or regulation, the more stringent requirement shall govern to the extent of the conflict.

**D. Submittal and Review Process**

Landscape plans reviewed as part of the development plan or minor development plan process shall meet review criteria contained in Section 7.5.503 and 504 of the Zoning Code.

**E. Submittal Requirements**

Submittal requirements listed below and described in detail in this Part, include the following:

1. Final Landscape Plan
2. Landscape Grading Plan
3. Irrigation Plan
4. Inspection Affidavit

**E. Additional Requirements**

Additional submittal requirements are listed below, where applicable:

1. Preliminary Landscape Plan (without Irrigation Plan)
2. Irrigation Management Plan
3. Application for Administrative Relief
4. Application for Alternative Compliance
5. Significant vegetation retention plan (voluntary for landscape credit)
6. Acceptable financial assurance of installation for double frontage lot streetscape or common area, or for development plan approval for a change of use without construction of a structure.
7. Financial assurance of maintenance

**G. Plan Approval as a Prerequisite for Building Permit or Change of Use**

All landscape submittal requirements shall be met and plans approved by the City’s reviewing authorities prior to issuance of a building permit, or prior to final development plan approval for the conversion of vacant land to nonresidential use that does not involve the construction of a structure.

**H. Review Authorities**

The development/site plan submittal and review process is administered by City Planning. Landscape Plan requirements may be subject to review by City Council, the City Planning Commission and the Hearing Officer in compliance with Article 4, Part 2 of the Zoning Code. All tree plantings in the public right-of-way are subject to review and permit by the City Forester. Landscape plans may be subject to review by City Forestry, Parks and Recreation, Engineering, Police, Fire, Transportation, and Utilities.

**I. Compliance with Policies and Standards**

In addition to compliance with this Landscape Code, all required plans shall comply with the policies and standards of the Landscape Policy Manual.

**Policy 308.**

Figure 1 outlines the Submittal Sequence of Required Plans.

Figure 2 indicates the Professional Qualifications Needed to Prepare Required Plans.

**Figure 1**

**SUBMITTAL SEQUENCE OF REQUIRED PLANS**

| <b>Permit or Approval:</b>   | <b>Requirement:</b>  |
|--|--|
| 1. Development Plan, Minor Development Plan or Site Plan                           | Preliminary Landscape Plan or Final Landscape Plan<br>Landscape Grading Plan* or Grading and Erosion Control Plan<br>Preliminary Drainage Report |
| 2. Development Plan for change of use of vacant land without building construction | Final Landscape Plan<br>Landscape Grading Plan* or Grading and Erosion Control Plan<br>Irrigation Plan*<br>Drainage Report                       |
| 3. Building Permit   | Final Landscape Plan<br>Grading and Erosion Control Plan<br>Irrigation Plan*   |
| 4. Certificate of Occupancy  | Inspection Affidavits* or Financial Assurance for Maintenance*   |

**Note:**

1. Landscape Grading Plan must substantially comply with the Preliminary Drainage Report.
2. At Building Permit, the Grading and Erosion Control Plan must substantially comply with grading indicated on the Landscape Grading Plan and Drainage Report. If the Grading and Erosion Control Plan does not substantially comply with the Landscape Grading Plan and Drainage Report, then the Development Plan, Minor Development Plan or Site Plan must be amended to reconcile them.

**FIGURE 2**  
**PROFESSIONAL QUALIFICATIONS NEEDED TO PREPARE REQUIRED PLANS**

Note: Only one qualification (Yes) is needed in order to prepare the specific type of plan.

| PROFESSIONAL QUALIFICATION NEEDED:  | TYPE PLAN PERMITTED TO PREPARE: |                         |                   |
|---|---------------------------------|-------------------------|-------------------|
|   | Landscape Plan*                 | Landscape Grading Plan* | Irrigation Plan** |
| 1. Licensed Landscape Architect   | Yes                             | Yes                     | Yes               |
| 2. Full Member of American Society of Landscape Architects (ASLA)                                   | Yes                             | Yes                     | Yes               |
| 3. Bachelor or higher degree in Landscape Architecture or Landscape Design                          | Yes                             | Yes                     | No                |
| 4. Associate Member (except Student Associate) of ASLA or bachelor or higher degree in Horticulture | Yes                             | No                      | No                |
| 5. Registered Professional Engineer   | No                              | Yes                     | Yes               |
| 6. Licensed Architect   | No                              | Yes                     | No                |
| 7. Bachelor or higher degree in Agricultural Engineering  | No                              | No                      | Yes               |
| 8. Bachelor or higher degree in Civil Engineering   | No                              | Yes                     | No                |
| 9. Certified Irrigation Designer certified by The Irrigation Association                            | No                              | No                      | Yes               |

**INSTALLATION, VERIFICATION, AND DEFERRAL**

**Chapter 7, Article 4, Section 309**

**A. Administration and Enforcement**

The requirements of this Section are administered and enforced by City Planning in compliance with Article 5, Part 10 Zoning Enforcement, of this Zoning Code as deemed necessary and desirable to protect the public health, safety and welfare. As such, all steps regarding abatement or enforcement of remedies shall be consistent with the legal measures available to the Development Review Manager.

**B. Installation**

All landscaping, irrigation system and other site work shown on the approved landscape and irrigation plans shall be properly installed and stabilized against soil erosion and/or financially assured, prior to issuance of a Certificate of Occupancy, or prior to issuance of a building permit in the case of a double frontage lot streetscape requirement or common area, or prior to final development plan approval for the conversion of vacant land to non-residential use that does not involve the construction of a structure.

**C. Required Verification**

The owner or developer shall provide an inspection affidavit executed by both the qualified landscape plan designer and the qualified irrigation plan designer, which certifies that all components have been properly installed in conformance with the approved plans. In lieu of the provision of a properly executed inspection affidavit, City Planning shall inspect and verify the initial landscape and irrigation system installation subject to compliance with this Part.

**D. Deferral of Installation**

In cases where all or some portion of the required landscaping, irrigation system or other site work can not 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 to construction activities, the owner or developer may make the following arrangements in order to secure a Certificate of Occupancy:

1. An acceptable financial assurance shall be posted with the Development Review Manager. Acceptable financial assurances shall include cash, certificates of deposit, irrevocable letters of credit, performance bonds and escrow accounts. Said assurance shall be accompanied by a description of the uncompleted landscaping, irrigation system and/or site work and an estimate of the cost required to complete the same. The

assurance shall be an amount equal to the cost estimate.

2. The owner or developer shall agree in writing that he or she, or any successors or assigns, shall complete the required landscaping, irrigation system, and/or site work within one year or less from the date of issuance of the Certificate of Occupancy.
3. The financial assurance shall be released once all of the required landscaping, irrigation system, and/or site work has been installed, and verified in compliance with this Part.

**Policy 309.**

1. Where seeding is permitted, it shall be financially assured and the assurance shall not be totally released until the seeding is considered to be established in a healthy state by City Planning.
2. Inspection affidavit forms **Appendix J** and **Appendix K**, shall be available from City Planning.
3. A functional test of the irrigation system shall be performed by the installer and verified by the qualified designer, or be verified by City Planning in conformance with 7.4.310.B of the Landscape Code.
4. Financial assurances shall contain the basic provisions of the acceptable forms for financial assurances available from City Planning.
5. Installation Standards:
  - A. In motor vehicle lot planting areas compacted by site grading, soil shall be structurally renovated (tilled), or removed and replaced, to a depth of thirty inches (30").
  - B. 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.
  - C. Installation shall be in accordance with the Planting Details in Appendix H with regard to planting hole depth, size and shape, root ball preparation, construction of water basins, appropriate staking and guying, mulching and watering.
  - D. Seeded landscape areas shall have no bare areas larger than six inches by six inches (6" x 6") after germination.

**MAINTENANCE ASSURANCE**

**Chapter 7, Article 4, Section 310**

**A. Compliance Inspection**

City Planning shall perform a landscape compliance inspection two (2) years after the initial landscape installation is verified in conformance with Section 309.C of this Part.

**B. Alternative to Inspection Affidavit**

When a properly executed inspection affidavit is not provided as required by this Part, the owner or developer shall post an acceptable financial assurance with the Development Review Manager for a two (2) year period that guarantees the maintenance in good condition of all required landscaping components, except irrigation system components, and the replacement or repair of said components. City Planning will then inspect and verify the initial landscape and irrigation system installation.

**C. Type and Amount of Assurance**

Acceptable financial assurances shall include cash, certificates of deposit, irrevocable letters of credit, performance bonds and escrow accounts. The amount of the assurance shall be established in the Landscape Policy Manual. Said assurance shall be reduced in conformance with the procedures established in the Landscape Policy Manual.

**Policy 310.**

1. The amount of the financial assurance for maintenance shall be ten percent (10%) of the cost of the required landscape installation. No financial assurance shall be required for the irrigation system.
2. The amount of the financial assurance for maintenance may be reduced by the cost of verified, required plant replacements, on a one-time basis, during the two-year assurance period.

**D. Release of Assurance**

The financial assurance shall be released once City Planning verifies that all of the required landscaping has been maintained in compliance with the requirements and standards of this Landscape Code and the Landscape Policy Manual for a period of two (2) years from the date of verification of the initial landscape installation.



UNIT TWO —  
REQUIRED PLANS  
FOR SIGNATURE  
LANDSCAPES

## SIGNATURE LANDSCAPES

## Chapter 7, Article 4, Section 311

**A. Compliance with Signature Landscapes Framework**

A detailed explanation of the Signature Landscapes framework is provided in the Landscape Policy Manual. The landscape plan shall comply with the framework as set forth in the Policy Manual.

**B. Expression of Plant Communities**

The landscape plan shall present a site-adapted design with regard to soil type, microclimate, vegetative cover, efficient water use, grouping of signature plants into plant communities, and use of all other landscape components. The predominant landscape theme shall be expressed through the selection of plant species and their designed distribution on the site.

**C. Retention of Significant Vegetation and Topography**

Where reasonable, the design shall retain significant vegetation and shall limit alteration of unique or characteristic topography to the extent practicable within the grading requirements of the development project.

**D. Ecological Basis for Landscape Plans**

Where reasonable, the landscape plan shall reflect the ecological context of the site by the use of diverse plant species indicative of local plant communities indigenous or potentially adaptable to the conditions of the site. A landscape plan that consists of minimum percentages of signature plants shall be required in conformance with the Signature Landscapes framework of the Landscape Policy Manual.

**Policy 311.****1. Framework**

Signature Landscapes is a framework for landscape design developed to facilitate water-efficiency and the inclusion of regional plant communities and landscape qualities into proposed developments. Plant selection and horticultural and maintenance practices within the framework are suited to local conditions. The framework also requires consistency with the principles of Xeriscape (see Figure 3).

**2. Local Conditions:**

The local conditions of Colorado Springs reflect a wide variability in microclimate, soil type, altitude, solar exposure, annual precipitation, average length of growing season, and wind exposure.

- A. Constraints include high solar intensity, drying winter winds, low to non-existent soil organic matter content, extreme fluctuations in temperatures, hail, sharply dif-

ferentiated slope aspects, alkaline soils, extremely porous sandy soils or extremely tight clay soils, and erosion caused by grading disturbances.

- B. Average annual precipitation is 16.2 inches; approximately 13.2 inches occurs during the typical growing season that averages 148 days.
- C. Developable lands lie within an altitude range of approximately 5,500 to 6,800 feet above sea level.
- D. Soils within Colorado Springs range from gravels to sands, loams and clays. Rock outcroppings, mesas and valleys and rolling plains typify the topography. The geologic history of the area includes glacial action, uplift, landslides and alluvium and eolian dispersal of decomposed granites and sandstones. The landforms are indicative of the underlying soils. Variability of soils can be extreme, often within a given site.

Any plants that are not adapted to these local conditions will require supplemental water through irrigation, soil amendments and some protective measures.

**3. Framework Utilization**

- A. Three climate zones are delineated on the **Climate Zones for Signature Landscapes** map (see Figure 4). They are derived from the USDA-SCS General Soil Map Units of El Paso County, Colorado. The three climate zones that occur in Colorado Springs are:
1. Cold, subhumid to semiarid foothills
  2. Mild, semiarid foothills and plains
  3. Mild, semiarid to arid plains
- B. The Signature plant communities listed in Figure 4 are derived from the "potential natural vegetation" characterized for Major Land Resource Areas in USDA-SCS *Agriculture Handbook 296*. The eight plant communities that naturally occur in Colorado Springs are:
1. Semiarid Shrublands
  2. Pinon-Juniper Woodlands
  3. Prairie
  4. Lower Elevation Riparian
  5. Foothill Shrublands
  6. Ponderosa Pine Forest
  7. Upper Elevation Riparian
  8. Douglas-fir Forest
- C. The three climate zones mapped in Figure 4 are also arranged in a matrix with their corresponding Signature Landscape

- plant communities (potential natural vegetation). The matrix indicates that six (6) plant communities have potential for establishment in each climate zone, while two (2) do not.
- D. Refer to **Figure 4**, to identify the climate zone and corresponding six (6) potential plant communities for the project location, and to identify riparian areas, if applicable.
  - E. Conduct a site analysis to identify soils, topography, microclimates, slopes, potential vegetation to be conserved, and off-site conditions that may impact on the landscape plan.
  - F. If applicable, contact City Forestry to estimate credit for conservation of significant vegetation.
  - G. Utilize site data and Xeriscape principles of **Figure 3** to develop a site-specific design that meets site category requirements, can be reasonably hydrozoned for irrigation system design, exhibits practical turf areas, if utilized, and is consistent with the drainage, grading and erosion control plans for the project.
  - H. Determine the plant community or communities to be used in the landscape design. Native plant communities and their constituent plants are listed in **Appendix A**.
    1. Adjacent native plant communities typically blend into each other. Similar blends are encouraged where needed to fit the site microclimate(s) or to meet design objectives.
    2. Riparian communities may be applied to entire sites within any 500-year floodplain or within 500 feet of any 100-year floodplain.
    3. The upper elevation riparian community should ordinarily be used only in the foothills west of Interstate Highway 25.
  - I. Develop a Schematic Landscape Diagram of the site (approximately to scale) that shows the general location and type of each plant community and hydrozone to be used. The diagram must be submitted on the **Appendix E** form provided by City Planning or be shown clearly/separately on the landscape plan using the abbreviations from **Appendix E**.
  - J. Utilize **Appendix B** to select plants for the site in substantial conformance with

**FIGURE 3**

**XERISCAPE PRINCIPLES**

**Planning and Design**

Develop a plan that takes into account both the regional climate and the microclimate of the site, existing vegetation and topography, the proposed use of the property, and grouping plants by their water needs.

**Soil Analysis**

Analyze several samples of soil to determine the soil type(s) of the site so that appropriate amendments can be added. Soil amendments will aid plant growth by improving water penetration and retention.

**Appropriate Plant Selection**

Select plants for their adaptability to the site and their design characteristics. If water conservation is a design objective, choose native or low-water use plants.

**Practical Turf Areas**

Determine the function of high-water-use turf on the site and limit it to high traffic or recreational areas, drainage swales or other appropriate uses. Avoid narrow areas and steep slopes where irrigation will be inefficient and mowing difficult.

**Efficient Irrigation**

Water only when plants need it and deeply to encourage root growth for a healthier, more drought tolerant landscape. Grouping plants by water need will allow the most water-efficient design of an irrigation system. Management of the system will be as important as its design.

**Use of Mulches**

Apply and maintain organic mulches at appropriate depths in planting beds to assist soils in retaining water, reduce weed growth, and prevent erosion.

**Proper Maintenance**

Preserve the beauty and water efficiency of the landscape through regular pruning, weeding, mulching, and irrigation system maintenance.

the project's Schematic Landscape Diagram. The water requirement, associated plant communities, and several design characteristics are noted for each plant in Appendix B.

- K. Develop a project plant list from Appendix B to satisfy site category requirements. At least sixty percent (60%) of the trees and sixty percent (60%) of the shrubs (or equivalent grasses) chosen from Appendix B must be signature plants (classified as N, B, H, or C in Appendix B) for the chosen plant communities. Cultivars and hybrids of the indicated plant species may be included in this calculation.
- L. All signature plants in Appendix B are listed by plant communities in the non-regulatory, supplemental *Signature Landscapes Design Manual*. Joint use of the *Design Manual* with Appendix B plant information will greatly facilitate application of the framework.
- M. The project plant list may be completed with up to forty percent (40%) of the remaining required plants being chosen from any of those contained in Appendix B, provided they are matched to the appropriate hydrozone. Cultivars and hybrids of the listed plant species may be included in this calculation. As such, design flexibility is retained and a substantial appearance of Signature Landscapes for the development is assured.
- N. Utilization of plants not included in Appendix B may be approved through administrative relief, provided that such plants are suited to the local conditions of Colorado Springs.

#### 4. Naturalized and Restored Landscapes

The Signature Landscapes framework does not require naturalized landscaping, nor the exclusive use of native plants, nor the literal restoration of formerly existing landscapes. Rather it provides principles that will result in landscapes that are reflective of the region, water-efficient and horticulturally sustainable.

#### 5. Alternative Landscape Designs

The Signature Landscapes framework seeks the conservation of indigenous plant communities and the inclusion of regional plant species and qualities in landscape design. It recognizes, however, that designs may employ introduced, non-native plant materials to express those qualities, and that some designs may be consistent with the overall intent of the Landscape Code and yet depart from a methodical application of the framework. See

Policy 307, Alternative Compliance.

#### 6. *Signature Landscapes Design Manual*

More detailed text, maps, and graphic design resources pertaining to the framework are included in the non-regulatory, supplemental *Signature Landscapes Design Manual*.

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## L A N D S C A P E P L A N

### Chapter 7, Article 4, Section 312

#### A. Qualifications to Prepare Plan

The required landscape plan shall be prepared by a person who meets the qualifications established in the professional qualifications standards of the Landscape Policy Manual, and who is knowledgeable of Colorado plant material, plant communities, local soils, and landscape and irrigation practices.

#### Policy 312.

##### 1. Qualified Designer

The person who prepares the landscape plan shall meet the qualifications established in **Figure 2, Professional Qualifications Needed to Prepare Required Plans, of Policy 308**. Qualifications shall be certified and submitted with the plan on **Appendix I, Certification of Professional Qualifications**.

##### 2. Non-Qualified Designer

A. For a single specific project, a non-qualified designer may apply to the City Planning Manager for administrative relief from the professional qualifications in **Figure 2**. Such relief must be approved prior to the official submittal of a complete development or site plan application that contains a plan prepared by the non-qualified designer. The application for administrative relief from professional qualifications shall contain the following information:

1. A written resume of the non-qualified designer's education, design and inspection experience that demonstrates the knowledge required by the Landscape Code and equivalency with the professional qualifications required in **Figure 2**.
2. Submission of all required landscape plans and information for the specific project that are

needed to demonstrate compliance with the Landscape Code and Policy Manual.

- B. A non-qualified designer may apply to the City Planning Manager for recognition as a qualified designer after obtaining administrative relief to design and inspect several diverse projects, and after having demonstrated competent knowledge in the design and inspection of those projects.
- C. The City Planning Manager shall evaluate each application for administrative relief from the professional qualifications in Figure 2, or for recognition as a qualified designer, and reply in writing to the applicant in a timely manner.

**B. General Requirements**

The landscape plan, through graphic symbols and notes, shall comply with the planting and site criteria specified by this Landscape Code, and with the policies, procedures, standards, Selected Plants list (Appendix B) and all other requirements of the Landscape Policy Manual and City application forms.

**C. Site Categories**

The following site categories are required to be landscaped and labeled:

- 1. Landscape setbacks for double frontage lot streetscapes.
- 2. Motor vehicle lots.
- 3. Internal landscaping.
- 4. Landscape buffers and screens.
- 5. Street trees in parkways.

**D. Plant Selection**

Plants shall be selected from Appendix B of the Landscape Policy Manual. Signature plants, suited to the conditions of the site, shall be grouped to express ecological and plant community compatibility in conformance with the Signature Landscapes framework of the Landscape Policy Manual. Non-signature plants selected shall also be suited to the soil and microclimates of the site.

**E. Hydrozones**

Plants with similar water needs within each site microclimate (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.

**E. Numerical Requirements**

The locations and quantities of plants shall comply with the requirements established for the various site categories in this Part and with the policies and standards of the Landscape Policy Manual.

**G. Requirements are Cumulative**

The site categories and 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, except as specifically provided in the Landscape Policy Manual.

**H. Ground Plane Treatment**

Ground cover and turf requirements that pertain to the site categories are found in this Part, Ground Plane and Turf, and the Landscape Policy Manual.

**3. Plan Requirements**

All plan information shall be provided as required in the Figure 5, Landscape Plan Checklist, to be submitted with each plan application.

- 4. A Schematic Landscape Diagram (Appendix E), drawn approximately to scale, shall be submitted with the landscape plan or be shown clearly/separately on the landscape plan using the abbreviations from Appendix E. It shall illustrate the selected plant communities and hydrozones to be used on the site.
- 5. Each plant shall be shown on the plan within the range of mature size indicated in Appendix B.
- 6. Hydrozones shall be identified and labeled on the landscape plan by amount of water applied (very low, low, moderate, or high) and method of application (drip, spray, etc.) for groupings of plants with similar water needs. Appendix B gives the water requirement of each plant species that may be selected.
- 7. The calculation of site category requirements and how they are met shall be noted on the plan in conformance with Appendix F, Site Category Calculation Formats.
- 8. Plant materials shall be listed on the plan in conformance with Appendix G, Plant Schedule Format.
- 9. Tree, shrub, perennial and ground cover planting details shall be shown on the plan as prescribed in Appendix H, Planting Details.
- 10. The landscape plan shall be designed to meet the Objectives of 7.4.302 and all other applicable requirements and criteria of the Landscape Code and Landscape Policy Manual.

Figure 5.

**LANDSCAPE PLAN CHECKLIST**

(To be submitted in conformance with Policy 312)

Name of Project: \_\_\_\_\_

Complete the following checklist by checking all completed requirements under APPLICANT column, indicating conformance with the Zoning Code and Landscape Policy Manual.

The plan shall include:

| <b>APPLICANT</b>   | <b>REVIEWER COMMENT</b> |
|--|-------------------------|
| _____ 1. Appendix I, Certification of Professional Qualifications, attached.   | _____                   |
| _____ 2. Soil analysis report, from an established soil analysis laboratory, attached.   | _____                   |
| _____ 3. Description of soil preparation and amendments per soil analysis.   | _____                   |
| _____ 4. Climate zone and plant communities to be used noted from Figure 4, Climate Zones for Signature Landscapes map, of Policy 311. | _____                   |
| _____ 5. Appendix E, Schematic Landscape Diagram of plant communities and hydrozones attached or shown clearly/separately on plan.     | _____                   |
| _____ 6. Calculation of site category requirements and how they are met per Appendix F format.   | _____                   |
| _____ 7. Plant Schedule, per Appendix G format, meeting plant material specifications of Policy 312.                                   | _____                   |
| _____ 8. Percentages of Signature Plants per Appendix G format.  | _____                   |
| _____ 9. Tree, shrub, perennial and ground cover planting details per Appendix H.  | _____                   |
| _____ 10. North arrow and vicinity map.  | _____                   |
| _____ 11. Notation of scale, with bar scale.   | _____                   |
| _____ 12. Dimensioned property lines.  | _____                   |
| _____ 13. Location, name, and classification of abutting streets.  | _____                   |
| _____ 14. Existing and proposed zoning of the site and existing zoning of surrounding properties.                                      | _____                   |
| _____ 15. Project data including the total square footage of the property and number of parking spaces.                                | _____                   |
| _____ 16. General statement of type(s) of equipment and method(s) to be used to irrigate the site categories.                          | _____                   |
| _____ 17. Delineation of 100 year floodplain and nontidal wetlands, as applicable.   | _____                   |
| _____ 18. Plan for protection of vegetation to be retained, during site grading and building construction process, as applicable.      | _____                   |
| _____ 19. Written request for Administrative Relief per Appendix L, as applicable.   | _____                   |

Site elements to be indicated:

- \_\_\_\_\_ 20. All structures and light standards. \_\_\_\_\_
- \_\_\_\_\_ 21. Exterior parking and loading areas, and vehicular drives. \_\_\_\_\_
- \_\_\_\_\_ 22. Pedestrian walks or paths and pedestrian-oriented areas. \_\_\_\_\_
- \_\_\_\_\_ 23. All retaining walls, screening walls, and fences by type and height. \_\_\_\_\_
- \_\_\_\_\_ 24. Existing major vegetation to be retained and to be removed, by size and species. \_\_\_\_\_
- \_\_\_\_\_ 25. Existing grade elevations of plants to be retained. \_\_\_\_\_
- \_\_\_\_\_ 26. Location of trees, shrubs and equivalent ornamental grasses labeled by quantity, species, and site category, with species in substantial conformance with the Schematic Landscape Diagram. \_\_\_\_\_
- \_\_\_\_\_ 27. Proposed plants shown within ranges of mature width indicated in Appendix B. \_\_\_\_\_
- \_\_\_\_\_ 28. Ground plane treatment, by species of plant, manner of establishment, and/or type and depth of mulch, etc. \_\_\_\_\_
- \_\_\_\_\_ 29. Plants not required by Code or for administrative relief labeled as "extra". \_\_\_\_\_
- \_\_\_\_\_ 30. Any non-living materials. \_\_\_\_\_
- \_\_\_\_\_ 31. Delineation of corner visibility triangle(s). \_\_\_\_\_
- \_\_\_\_\_ 32. Natural features, such as rock outcrops, ponds, lakes, and streams. \_\_\_\_\_
- \_\_\_\_\_ 33. Existing and proposed storm water management ponds. \_\_\_\_\_
- \_\_\_\_\_ 34. Height and slope of all berms. \_\_\_\_\_
- \_\_\_\_\_ 35. Areas of slope protection. \_\_\_\_\_
- \_\_\_\_\_ 36. Reclamation and erosion control areas labeled. \_\_\_\_\_
- \_\_\_\_\_ 37. Locations of existing and proposed utilities and utility easements. \_\_\_\_\_
- \_\_\_\_\_ 38. Overhead powerlines clearly labeled. \_\_\_\_\_
- \_\_\_\_\_ 39. Screening of refuse collection areas from adjacent streets and properties. \_\_\_\_\_
- \_\_\_\_\_ 40. Screening of loading and utility service areas, vehicle repair bays, and vehicle fueling areas from adjacent streets and properties. \_\_\_\_\_
- \_\_\_\_\_ 41. A detailed design of screening structures. \_\_\_\_\_

I hereby acknowledge that the information indicated in this Landscape Plan submittal checklist is correct, and that any incomplete and/or incorrect information will cause a delay in review.

Name (print) \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**I. Plant Substitutions**

Minor revisions to an approved landscape plan may be requested due to lack of plant availability or seasonal planting constraints. Substitutions may be permitted in conformance with criteria in the Landscape Policy Manual.

**11. Criteria for Plant Substitutions**

- A. The quantities of provided plants are not reduced.
- B. The size of plant material and location is not altered.
- C. The replacement plant material is equal to the plant being substituted in terms of the plant community and design characteristics, cultural and water requirements, and maintenance.
- D. The replacement plant material is hardy, adaptable to site-specific conditions and chosen from Appendix B or otherwise approved by City Planning.

**J. Optional Preliminary Landscape Plan**

A preliminary landscape plan (without irrigation plan), with information as required in the Landscape Policy Manual, may be submitted as part of a development plan under review with the condition that a final landscape plan (with irrigation plan) shall be submitted for review and approval prior to the issuance of a building permit or change of use. When the preliminary landscape plan information is not sufficient to assure that the development plan will avoid (or acceptably mitigate) an adverse impact on a surrounding property, part or all of the final landscape plan information may be required.

**12. Preliminary Landscape Plan**

A preliminary landscape plan (without irrigation plan) shall consist of all information required in the Figure 5, Landscape Plan Checklist, and Figure 6, Landscape Grading Plan Checklist, except that only the general location, type and size of major existing plant materials and only the general location and type (not species) of proposed plant materials must be shown. Plant communities and hydrozones shall be indicated, but plant species and standard planting details are not required. This information shall be sufficient to ensure that the various landscape requirements can be met on the final landscape plan.

**13. Mix of Species**

Groupings of plants rather than single plantings are encouraged. Species selection shall reflect canopy, understory and ground cover plants that are compatible. Refer to plant community lists in Appendix A, and to Appen-

dix B for information regarding natural plant associations, water requirements, soil tolerances, and design characteristics.

**14. Tree Spacing and Location**

- A. All spacing of trees shall conform to the range of average mature spread for each respective species in Appendix B. Design flexibility is allowed for the spacing of trees on private property that results in a twenty percent (20%) reduction in spacing.
- B. In all cases, the natural form of the plant shall be accommodated when planting near paved areas such as streets, sidewalks, driveways, and motor vehicle lots. This will normally require a minimum five foot (5') setback for deciduous trees and an eight to fifteen foot (8'-15') setback for evergreen trees, depending on the species and variety selected.

**15. Plant Material Specifications**

Minimum planting/installation sizes of plant materials shall conform to the criteria below:

- A. **Deciduous shade trees**  
One and one-half inch (1.5") caliper measured six inches (6") above ground.
- B. **Deciduous ornamental trees**  
One-inch (1") caliper measured six inches (6") above ground or multi-stemmed clump form with a minimum height of four feet (4') above ground.
- C. **Evergreen trees**  
Six feet (6') in height above ground.
- D. **Evergreen and deciduous shrubs**  
One (1) or five (5) gallon size.
- E. **Ornamental grasses**  
One (1) or five (5) gallon size.
- F. **Ground covers and vines**  
Two and one quarter inch (2.25") or four inch (4") flat-type container, one (1) gallon, or five (5) gallon size.

**16. Tree Requirements and Restrictions**

- A. At least forty percent (40%) of site trees shall be trees that will exceed thirty feet (30') in height at maturity.
- B. Use of trees with brittle or hazardous characteristics, as indicated in Appendix B, shall only be used where those characteristics are not problematic.

**17. Prohibited and Invasive Species**

- A. Remarks regarding plants that are restricted or recommended with caution

- are found in the "comments" column of Appendix B.
- B. Riparian tree species with invasive roots and brittle branches shall be planted at least twenty-five feet (25') from public wastewater, water, and drainage lines, and streets, curbs and sidewalks. These species include Elder (*Sambucus*), Willow (*Salix*) and Cottonwood (*Populus*).
- C. Invasive species that are not typically permitted include Tamarisk (*Tamarix parviflora* and *T. ramosissima*), Siberian Elm (*Ulmus pumila*), Ox-eye Daisy (*Chrysanthemum leucanthemum*), Purple Loosestrife (*Lythrum salicaria*).

1. The excavation or fill of less than seven hundred fifty (750) cubic yards, and
2. The grading of a site with plat-  
ted acreage of less than two  
acres, and
3. The grading of property with a  
natural slope of eight percent  
(8%) or less, and
4. The grading or disturbance of  
land that is not in an area zoned  
Hillside Area Overlay.

Such relief must be approved prior to the official submittal of a complete develop-  
ment or site plan application that contains  
a plan prepared by the non-qualified de-  
signer. The application for administrative  
relief from professional qualifications shall  
contain the following information:

- a. A written resume of the  
non-qualified designer's  
education, design and in-  
spection experience that  
demonstrates the knowl-  
edge required by the Land-  
scape Code and equiva-  
lency with the professional  
qualifications required in  
Figure 2.
  - b. Submission of the required  
landscape grading plan  
and information for the  
specific project needed to  
demonstrate compliance  
with the Landscape Code  
and Policy Manual.
- B. A non-qualified designer may apply to the  
City Planning Manager for recognition as  
a qualified designer for any project meet-  
ing criteria 2.A.1-4 above after obtaining  
administrative relief to design and inspect  
several diverse projects, and after having  
demonstrated competent knowledge in  
the design and inspection of those  
projects.
- C. The City Planning Manager shall evaluate  
each application for administrative relief  
from the professional qualifications in Fig-  
ure 2 or for recognition as a qualified de-  
signer for any project meeting criteria  
2.A.1-4 above, and reply in writing to the  
applicant in a timely manner.

**LANDSCAPE GRADING PLAN**

**Chapter 7, Article 4, Section 313**

**A. Qualifications to Prepare Plan**

The required landscape grading plan shall be prepared by a person who meets the qualifications established in the professional qualifications standards of the Landscape Policy Manual, and who is knowledgeable of local soil conditions and hydrology, the landscape implications of disturbance of soil horizons, adjustments to existing grades and grade change tolerances of plant species to be retained, the planting and irrigation/water runoff impact associated with varying degrees of slope and berms, the principles of water harvesting and on-site ground water recharge through pervious surfaces, the implications of compaction and fill materials on soil as a growing medium for plants, erosion control, conservation of topsoil and A horizon soils, and alterations in permeability as a result of grading operations.

**Policy 313.**

**1. Qualified Designer**

The person who prepares the landscape grading plan shall meet the qualifications established in Figure 2, Professional Qualifications Needed to Prepare Required Plans, of Policy 308, Qualifications shall be certified and submitted with the plan on **Appendix I, Certification of Professional Qualifications.**

**2. Non-Qualified Designer**

- A. A non-qualified designer may apply to the City Planning Manager for administrative relief from the professional qualifications in Figure 2 for a single specific project on private property that will result in:

**B. General Requirements**

The landscape grading plan shall provide all information necessary to clearly indicate existing and proposed site conditions including, but not limited to: contour intervals, existing and proposed contours, top and toe

of manufactured slopes, retaining walls with top of wall elevations and finish grade on each side, and general intent of site drainage.

### C. Coordination with Landscape and Irrigation Plans

The landscape grading plan shall be consistent with the landscape and irrigation plans and shall ensure;

1. The provision of adequate and proper drainage for survival of plant material
2. The stockpiling and redistribution of beneficial topsoil;
3. The mitigation of slopes that are difficult to vegetate or irrigate, or that would result in water runoff onto paved surfaces;
4. The provision of water harvesting where beneficial and feasible;
5. The protection of landscaping from flooding or contaminated runoff;
6. Aesthetically and functionally placed berms; and,
7. General contouring of the ground plan to create forms that are aesthetically pleasing and that contribute to the intent of the landscape design.

### D. Consistency with Grading and Erosion Control Plan Contents and Review

The landscape grading plan shall be consistent with the Grading and Erosion Control Plan reviewed by City Engineering.

### 3. Plan Submittal

A landscape grading plan shall be submitted in lieu of a grading and erosion control plan for development plans, minor development plans and site plans. A landscape grading plan does not substitute for a grading and erosion control plan at building permit application (see **Figure 1**). All plan information shall be provided as required in the **Figure 6, Landscape Grading Plan Checklist**, to be submitted with each plan application. In lieu of contour intervals, equivalent spot elevations may be indicated on the landscape grading plan.

### E. Slope Standards

The landscape grading plan shall conform to the slope standards established in the Landscape Policy Manual.

#### 4. Slope Standards

- A. Slopes shall provide for adequate drainage.
- B. All planting areas shall have a minimum slope of two percent (2%).
- C. Slopes shall ensure positive drainage away from structures.
- D. Slopes that cause irrigation runoff onto paved areas are prohibited.
- E. No slope shall exceed 2:1, without terraces or retaining walls.

- F. Slopes adjacent to conservation areas shall not significantly alter historic drainage patterns or create additional runoff.
- G. Slopes to be planted shall have rough or scarified surface to slow runoff and collect moisture for plants.
- H. Native grasses as revegetation are permitted on all slope gradients.
- I. Ground plane plantings for slopes with a gradient greater than 4:1 shall consist of ground covers, native grasses and/or shrubs.
- J. Revegetated slopes that exceed a slope of 3:1 shall require a mix of plant species with deep, variable rooting systems.

### 5. Berm Standards

- A. Berms shall be graded to have naturalistic forms.
- B. Slope of berms shall not exceed 3:1.
- C. Top of berm shall be at least three feet (3') wide for any berm steeper than 4:1.
- D. Toe of berm shall have a minimum three foot (3') landing to mitigate water runoff. Landing gradient shall not exceed 6:1.

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## IRRIGATION PLAN

### Chapter 7, Article 4, Section 314

#### A. Qualifications to Prepare Plan

Effective two years from the date of final passage of this ordinance, any required irrigation plan shall be prepared by a person who meets the qualifications established in the professional qualifications standards of the Landscape Policy Manual, and who is knowledgeable of conservation and water efficient design principles, ET rates, irrigation system components and maintenance, hydrology, local soil classifications, textures, infiltration rates, and their implications for irrigation design; degree and orientation of slopes, and locally used plant materials and their respective water needs.

#### Policy 314.

1. The person who prepares the irrigation plan shall meet the qualifications established in **Figure 2, Professional Qualifications Needed to Prepare Required Plans**, of Policy 308, Qualifications shall be certified and submitted with the plan on **Appendix I, Certification of Professional Qualifications**.

Figure 6.

**LANDSCAPE GRADING PLAN CHECKLIST**

(To be submitted with Landscape Grading Plan, in lieu of a Grading and Erosion Control Plan.)

Name of Project: \_\_\_\_\_

Complete the following checklist by checking all completed requirements under APPLICANT column, indicating conformance with the Zoning Code and Landscape Policy Manual.

The plan shall include:

| <b>APPLICANT</b>  | <b>REVIEWER COMMENT</b> |
|---|-------------------------|
| _____ 1. Appendix I, Certification of Professional Qualifications, attached.      | _____                   |
| _____ 2. North arrow and vicinity map.  | _____                   |
| _____ 3. Notation of scale, with bar scale.                                       | _____                   |
| _____ 4. Dimensioned property lines.  | _____                   |
| _____ 5. Location, name, and classification of abutting streets.                  | _____                   |
| _____ 6. Delineation of 100 year floodplain and nontidal wetlands, as applicable. | _____                   |

Site elements to be indicated:

|  |       |
|--|-------|
| _____ 7. Natural features, such as rock outcrops, ponds, lakes, and streams.                                 | _____ |
| _____ 8. Existing and proposed storm water management ponds.   | _____ |
| _____ 9. Existing grade elevations of plants to be retained.   | _____ |
| _____ 10. Existing and proposed topography at two foot (2') contour intervals or equivalent spot elevations. | _____ |
| _____ 11. Top soil stockpiling area(s).  | _____ |
| _____ 12. Slopes in conformance with Policy 313 Slope Standards.   | _____ |
| _____ 13. Top and toe of manufactured slopes.  | _____ |
| _____ 14. Berms in conformance with Policy 313 Berm Standards.   | _____ |
| _____ 15. Height and slope of all berms.   | _____ |
| _____ 16. Slopes greater than 4:1 labeled.   | _____ |
| _____ 17. Retaining walls with top of wall elevations, and finish grade on each side.                        | _____ |
| _____ 18. Areas of slope protection.   | _____ |
| _____ 19. Reclamation and erosion control areas labeled.   | _____ |
| _____ 20. General intent of site drainage.   | _____ |
| _____ 21. Water harvesting and ground water recharge areas.  | _____ |

I hereby acknowledge that the information indicated in this Landscape Grading Plan submittal checklist is correct, and that any incomplete and/or incorrect information will cause a delay in review.

Name (print) \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**B. General Requirements**

1. The irrigation plan shall be submitted and approved prior to the issuance of a building permit, or prior to final development plan approval for the conversion of vacant land to nonresidential use that does not involve the construction of a structure.
2. The irrigation plan shall graphically and through notes depict a water-efficient design consistent with the landscape and grading plans.
3. The irrigation plan shall show and note hydrozones. The hydrozones shall take into account like water demand plants, slopes, microclimates, environmental factors, and water pressure.
4. Irrigation systems shall conform to the irrigation standards and all other provisions of the Landscape Code and Landscape Policy Manual.
  2. Due to the semiarid climate and drying winds, evapotranspiration exceeds natural precipitation in Colorado Springs. Except for the most drought tolerant plantings, supplemental irrigation will therefore be required. Efficiency of water usage is critical both in the design and management of such irrigation systems.
  3. Provide all plan information required in **Figure 7, Irrigation Plan Checklist**, to be submitted with each plan.
  4. The irrigation zones on the irrigation plan shall substantially correspond to the hydrozones on the landscape plan and be labeled by precipitation rates and method of water application (drip, spray, etc.).
  5. Irrigate as necessary for high usage recreation areas such as athletic fields, golf courses, playgrounds, and high pedestrian traffic areas.

**C. As-built Plans Required**

As-built plans are required when the installation of the irrigation system does not comply with the approved irrigation plan. As-built drawings shall be prepared by a person who meets the qualifications established in the professional qualification standards of the Landscape Policy Manual.

**D. System Test Required**

A functional test of the irrigation system shall be performed by the installer and verified by the qualified designer or by City Planning in conformance with this Part.

**E. Irrigation Management Information**

City Planning may require the formulation of an irriga-

tion management plan in conformance with the standards of the Landscape Policy Manual for large, complex projects. Implementation of the management plan shall be the responsibility of the property owner.

6. An irrigation management plan, if required, shall include recommended irrigation schedules for the plant establishment period of two years, and seasonal or monthly irrigation schedules for the duration of the landscape. A copy of the approved plan shall be posted adjacent to the automatic controller for the project.

**7. Irrigation Management Plan Standards**

Where required, the irrigation management plan shall contain the following information:

- A. Site specific conditions including soil type, slope, winds, ambient temperatures, and humidity.
- B. Irrigation system information required in **Figure 7, Irrigation Plan Checklist**, and any additional information needed to sufficiently describe the system
- C. Use of non-potable and reclaimed water shall be indicated. Any other site features that affect water usage such as fountains shall be described.
- D. Protection plan for any significant vegetation to be retained.
- E. Recommended watering data for each of the following periods:
  - During plant establishment (a minimum of 30 days)
  - Monthly water during the typical growing season (April to October), based on typical ET and precipitation data for each month
  - Winter watering after establishment
  - Temporary or manual irrigation
- F. The following information for each watering period itemized above:
  - Run time per cycle for each control valve (zone)
  - Frequency of cycle for each control valve
- G. Schedule of system inspections.

**Figure 7.**

**IRRIGATION PLAN CHECKLIST**

(To be submitted in conformance with Policy 314)

Landscape Plan File No. \_\_\_\_\_ Name of Project \_\_\_\_\_

Complete the following checklist by checking all completed requirements under APPLICANT column, indicating conformance with the Zoning Code and Landscape Policy Manual.

The following individual site conditions have been addressed:

| <b>APPLICANT</b>   | <b>REVIEWER COMMENT</b> |
|--|-------------------------|
| _____ 1. Prevailing winds  | _____                   |
| _____ 2. Slope aspect and degree of slope                                  | _____                   |
| _____ 3. Soil type and infiltration rate                                   | _____                   |
| _____ 4. Vegetation type   | _____                   |
| _____ 5. Microclimates   | _____                   |
| _____ 6. Expansive or hazardous soil conditions                            | _____                   |
| _____ 7. Water harvesting potential  | _____                   |
| _____ 8. Available water supply, including non-potable and reclaimed water | _____                   |

All pertinent system information is indicated, including:

|  |       |
|--|-------|
| _____ 9. Irrigation zones substantially corresponding to hydrozones on the landscape plan and labeled by precipitation rates and method of application | _____ |
| _____ 10. Water meters   | _____ |
| _____ 11. Tap-in location  | _____ |
| _____ 12. Static water pressure at the point of connection   | _____ |
| _____ 13. System controller  | _____ |
| _____ 14. Rain sensors   | _____ |
| _____ 15. Backflow preventers  | _____ |
| _____ 16. Shut-off valves and zone control valves  | _____ |
| _____ 17. Main line and lateral piping   | _____ |
| _____ 18. Sprinkler heads  | _____ |
| _____ 19. Bubblers and drip irrigation tubing runs   | _____ |
| _____ 20. Type and size of main irrigation system components   | _____ |
| _____ 21. Graphic depiction of the locations of irrigation system components   | _____ |
| _____ 22. Manufacturer stated precipitation rates  | _____ |
| _____ 23. Total required operating pressure for each control valve/zone  | _____ |
| _____ 24. Any supplemental stormwater and/or runoff harvesting   | _____ |

**System design is in conformance with the following standards:**

- \_\_\_\_\_ 25. Appendix I, Certification of Professional Qualifications, attached (effective November 1, 2000). \_\_\_\_\_
- \_\_\_\_\_ 26. Pedestrian surfaces located on plan. \_\_\_\_\_
- \_\_\_\_\_ 27. Equipment installed flush with grade for safety. \_\_\_\_\_
- \_\_\_\_\_ 28. Compliance with local codes. \_\_\_\_\_
- \_\_\_\_\_ 29. Overspray onto impervious areas minimized. \_\_\_\_\_
- \_\_\_\_\_ 30. Low volume, underground and low trajectory spray nozzles used where appropriate. \_\_\_\_\_
- \_\_\_\_\_ 31. Method of irrigation matched to size and shape of area and plant material, and for uniformity of coverage. \_\_\_\_\_
- \_\_\_\_\_ 32. System designed in conformance with manufacturer's recommendation for efficiency. \_\_\_\_\_
- \_\_\_\_\_ 33. Water pressure regulated with valves. \_\_\_\_\_
- \_\_\_\_\_ 34. Water hammer and line and head drainage prevented. \_\_\_\_\_
- \_\_\_\_\_ 35. Pressure compensating outlets used where pressure varies more than 20 percent or 20 p.s.i. from design operating pressure. \_\_\_\_\_
- \_\_\_\_\_ 36. Adequate backflow protection installed. \_\_\_\_\_
- \_\_\_\_\_ 37. Rain sensing devise installed for automatically controlled system. \_\_\_\_\_
- \_\_\_\_\_ 38. Controller has accurate timer, multiple program capability, multiple repeat cycle, a 7 to 14 day program calendar, and one remote control valve per station. \_\_\_\_\_
- \_\_\_\_\_ 39. Irrigation lateral contains matched precipitation rates for sprinkler arcs. \_\_\_\_\_
- \_\_\_\_\_ 40. Irrigation tap sized to irrigate site in the maximum time allowed for operation of the zones. \_\_\_\_\_
- \_\_\_\_\_ 41. Irrigation component detail sheet provided. \_\_\_\_\_

**Where applicable, system design conforms to the following landscape plan elements:**

- \_\_\_\_\_ 42. Separate zones provided for different equipment or water requirements based on exposure, plant selection, and slope. \_\_\_\_\_
- \_\_\_\_\_ 43. Drainage not altered within existing plant communities to be conserved. \_\_\_\_\_
- \_\_\_\_\_ 44. Existing non-irrigated plant communities to be retained are not irrigated. \_\_\_\_\_
- \_\_\_\_\_ 45. Temporary irrigation provided for newly established native plant areas. \_\_\_\_\_
- \_\_\_\_\_ 46. High water-use-turf areas zoned separately from shrubs and trees. \_\_\_\_\_
- \_\_\_\_\_ 47. Irrigation provided where natural rainfall is not adequate to ensure germination and establishment of hydroseeded areas. \_\_\_\_\_

I hereby acknowledge that the information indicated in this Irrigation Plan submittal checklist is correct, and that any incomplete and/or incorrect information will cause a delay in review.

Name (print) \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**CONSERVATION OF SOIL AND DRAINAGE**

**Chapter 7, Article 4, Section 315**

**A. Purpose**

Urban growth and development have altered topography, soil, and drainage patterns, changing the microclimates of the City. The requirements of this section are intended to allow conservation of these natural systems and to mitigate the negative impacts of the development process.

**B. Soil Conservation and Analysis**

Topsoil shall be stockpiled during construction for use in landscape areas prior to planting. In order to develop a planting plan suited to the site, a soil analysis shall be conducted by an established soil analysis laboratory. The soil analysis report shall contain at a minimum the soil texture, percentage of organic matter, pH, total soluble salts, and recommended amendments where appropriate. A copy of the report shall be submitted as either:

1. Part of the Final Landscape Plan; or,
2. At the completion of landscape work. A signed affidavit attesting to the soil amendments incorporated to correct deficiencies shall be included with the soil analysis prior to the issuance of a Certificate of Occupancy. The Applicant shall include at the time of Final Landscape Plan submittal a written Statement of Justification for deferral of the Soil Analysis. The Staff Landscape Architect may, in certain situations, require that a Soil Analysis be performed in conjunction with the Final Landscape Plan review if it is determined that the explanation for deferral is not valid or that soil conditions are not representative of the native soils. This would typically occur in urban conditions where soil disturbance was evident. If a Soil Analysis is not included with the Landscape Plan submittal, the plan shall be prepared using the "General Vegetation and Soil Associations" map included in the Landscape Code and Policy Manual. The plant materials specified shall be compatible with the Soils Classifications identified on this map with the Soil Association identified on the Landscape Plan; or,

3. Waiver Request: A written request for Waiver of the Soil Analysis may be appropriate under certain conditions. This may be approved 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. (Ord. 99-91)

**Policy 315.**

1. The conservation of topsoil and the mitigation of disturbance of soil horizons will ensure that plants adapted to the site can be established and maintained.

**C. 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.

2. For landscape purposes the primary concerns are relatively low organic matter of local soils, high shrink/ swell capacity of clay soils and geologic hazard areas, percolation rate and slopes associated with each soil type, and changes due to grazing, farming, mining and urban development that may have resulted in overturned soil horizons, compaction, and a minimal topsoil layer.
3. Plants shall be matched to the site-specific soil types and/or soils shall be amended to provide an acceptable growing medium for the species indicated for installation.

**4. Required Soil Improvement Areas**

In motor vehicle lot planting areas compacted by site grading, soil shall be structurally renovated (tilled) or removed to a depth of thirty inches (30") and replaced with an acceptable growing medium for the species indicated for installation.

**D. Drainage**

All drainage shall comply with the City Code and Landscape Policy Manual. Where existing native plant communities are to be retained, drainage shall not be altered so as to be detrimental to the viability of the plants.

5. Ephemeral streams, washes, creeks, drainageways, wetlands, marshes, ponds, riparian woodlands, and bodies of water are valuable natural resources and comprise an extensive network in Colorado Springs. Both lower elevation riparian (elevation 5,500' -

6,200') and upper elevation riparian (elevation 6,200' - 7,500') occur locally. These water features provide recreational and visual amenities in the urban area and serve as habitat for approximately 85 percent of the birds and wildlife of the region. As such, the policies regarding these areas are as follows:

- A. Protect and retain existing riparian vegetation where practical.
- B. Maximize groundwater recharge.
- C. Restore vegetation disturbed as a result of development where possible.
- D. Naturalistic solutions to engineered drainage requirements shall be investigated to mitigate the loss of existing vegetation and wildlife, and the degradation of water quality.

#### E. Erosion Control and Slope Revegetation

All disturbed site areas shall be revegetated and slopes stabilized in conformance with the City Code and Landscape Policy Manual.

6. All disturbed areas shall be revegetated and slopes stabilized in conformance with City Engineering standards and the slope revegetation standards established herein.

#### 7. Slope Revegetation Standards

- A. Seeding shall occur within 30 days of grading or at the earliest practical time for germination and operation of irrigation systems.
- B. Slope stabilization shall be achieved and slope area shall be covered within thirty (30) days of completion of grading with approved geotextile material, mulch or netting to control surface soil erosion.
- C. Irrigation shall be provided during the vegetation establishment period.

#### B. Preservation Areas

The preservation of natural plant communities is provided for in the Zoning Code 7.3.504 (Hillside Overlay) and 7.4.102.E (Prohibited Activities in Preservation Areas). Allowable trimming and maintenance must comply with the Wildfire Fuels Management Ordinance, 8.4.105 of the City Code. Zoning Code 7.4.207 provides flexibility in the application of parking requirements in order to save valuable existing trees.

#### C. "Oasis" Plant Communities

The "oasis" concept shall allow existing indigenous plant communities to be retained in their entirety, with canopy trees, understory plants and ground covers left intact and undisturbed as credit toward required landscaping on development/site plans. In this manner, protection of characteristic plant communities serves to retain a "sense of place" and to fulfill landscaping requirements.

#### Policy 316.

1. Vegetation growing under different spatial conditions will have different structures and biological adaptations. Plant communities are structures with distribution patterns that differ based on the species. Some plant groupings can be reduced or thinned with reasonable expectation of survival, while others depend on the protection of edge layers and understory to be effectively preserved. Many mature trees, depending on the species, are not resilient to site changes, grade changes and alterations in drainage patterns.

#### D. Plant Conservation and Credit toward Tree Planting Requirements

1. The general location and species of existing significant vegetation shall be shown on the preliminary landscape plan.
2. The accurate location, existing ground elevation, species, and size of vegetation to be retained shall be shown on the final landscape plan.
3. The City Forester shall determine if the proposed vegetation to be retained is viable, if sufficient protection measures can be assured, if the species and size of the plant warrant the protection measures that will be required, and the credit equivalent of the plant(s).
  2. City Forestry oversees the inspections, protective measures and review procedures as a form of Administrative Relief in order to give credit for retention of trees and other vegetation.
  3. Where conservation credit is to be requested, the City Forester shall be contacted prior to submittal of the development plan and prior

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## CONSERVATION OF ON-SITE PLANTS

### Chapter 7, Article 4, Section 316

#### A. Purpose

Urban growth and development have altered the vegetative character of the City, changing its microclimates air quality and appearance. The requirements of this Section are intended to provide credit for the conservation of these natural systems and to mitigate the negative impacts of the development process. Also, conservation of existing vegetation is intended to conserve water, in that irrigation requirements may be substantially reduced by preserving existing plant groupings

to siting the building and vehicular service areas in order to assess the value and potential for conservation of significant vegetation.

4. Criteria for determination of conservation potential include existing and proposed grading, species type, its age and condition, and the location of proposed site improvements and utilities.
5. Critical areas of steep slopes, wetlands, floodplains and unique rock outcroppings shall be considered for conservation and a general inventory of plants conducted if necessary.
6. Plant lists indicating the species that comprise the eight regional plant communities found in Colorado Springs are provided in Appendix A. These regional species are given priority in consideration for conservation.
7. If the site or plant grouping is significantly altered, or edge plantings are removed, the altered conditions, i.e. exposure to sun and wind or loss of vegetative cover of the soil, may be so great as to cause the decline or death of remaining plants. These conditions shall be considered in the determination of conservation potential.
8. Species rooting patterns may affect conservation potential, as well as the location of feeder roots and their proximity to the soil surface.
9. Should the development and site improvements cause the structural or feeder roots to be cut or removed such that instability or insufficient intake of nutrients and water occur, the plant will not be considered to have good conservation potential.
10. Invasive or problematic species may not be considered, regardless of size. As such, the largest specimens on a site may not necessarily have good conservation potential.
11. No credit shall be given if the plant proposed for conservation is dead or dying. Should any plants used for credit die subsequent to development, replacement plants shall be installed equal to the credit given.
12. Where applicable, a site-specific tree protection plan shall be incorporated into the final landscape plan. Grading plan and building permit approvals may be withheld prior to implementation of the tree protection plan.
13. During the construction process, the site may be disturbed and grading may occur. Where revegetation of manufactured slopes or disturbed areas is planned, the slope revegetation standards of Policy 315 shall be met.

**E. Tree Retention Standards**

Specifications, plans and construction practices regarding the retention of significant vegetation on develop-

ment sites shall comply with the Landscape Policy Manual standards and City “Forestry Rules and Regulations”, Chapter 4, of the City Code.

**14. Significant Vegetation Retention Standards**

- A. Critical root zones shall be clearly delineated in the field through substantial protective fencing and “keep out” signs during all phases of site work and construction.
- B. Adequate erosion and sediment control structures shall be provided to protect the critical root zone.
- C. Positive drainage in the critical root zone shall be maintained during site work and construction.
- D. Proper root and crown pruning shall be implemented prior to site work and construction.
- E. Proper watering and mulching of the critical root zone shall be maintained during site work and construction.
- F. Grading and trenching within the critical root zone shall be prohibited or limited.
- G. Driving or parking equipment in the critical root zone shall be prohibited.
- H. Placement of stockpiled material or backfill in the critical root zone shall be prohibited.
- I. Dumping of trash, oil, paint or any contaminants within the critical root zone shall be prohibited.
- J. Implementation of protective measures shall be completed and verified prior to grading plan and building permit approvals.
- K. A copy of the tree protection plan shall be posted at the site.

---

**G R O U N D P L A N E A N D T U R F**

**Chapter 7, Article 4, Section 317**

**A. Intent**

Ground plane treatment shall be required in order to retain soil porosity, contribute to organic matter, stabilize slopes, reduce glare and pollution, reduce erosion and evaporation from soils and contribute aesthetically to the landscape.

**B. Coverage Requirements**

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

1. At least seventy-five percent (75%) of each site category area shall initially consist of plants, or plants and organic mulch;
2. At least seventy-five percent (75%) of each site category area shall be covered by vegetation within three years of planting;
3. Vegetative cover may consist of ground covers, perennials, shrubs, ornamental grasses, bulbs and grass mixes or turfgrasses;
4. The foliage crown of trees shall not be counted in the seventy-five percent (75%) calculation of vegetative cover;
5. Ornamental paving (excluding sidewalks) or rock mulch shall not exceed twenty-five percent (25%) of any site category area.

#### C. Use of Turfgrass

Turfgrass shall be specified according to the same criteria as other plants. It shall be used as a planned amenity or element in the landscape and not solely as infill material. The type, location and shape of any turf area shall be determined by its practical function.

#### Policy 317.

1. The aesthetic appeal of lawn areas combined with the beneficial effects of noise and dust abatement, glare reduction and temperature mitigation justify the inclusion of practical turf areas in the urban environment. Rather than prohibit the use of turf, these policies outline responsible, restricted turf uses and well managed, water-efficient irrigation systems to support them.
2. **Restrictions on Use of High Water Use Turf**
  - A. For each site category, not more than fifty percent (50%) of the entire area shall be covered.
  - B. Prohibited on slopes with steeper than 6:1 gradient.
  - C. Prohibited in medians less than twelve feet (12') wide.
  - D. Prohibited in any design configuration that cannot be efficiently irrigated.
  - E. Prohibited in motor vehicle lot planters less than twelve feet (12') wide.
  - F. Discouraged in street right-of-way where width between curb and detached sidewalk is less than eight feet (8') feet.
  - G. Discouraged where not utilized for a functional purpose.

#### D. Irrigation and Management of Turfgrass

Turfgrass shall be hydrozoned separately because of its

unique water demand. Landscaped areas shall be configured to minimize irrigation system components and water waste through overspray and runoff.

3. Grasses typically used in the City's landscapes include cool and warm season grasses. Cool season grasses commonly require more water and have a longer growing season. Kentucky bluegrass and Turf-type fescue are traditionally used cool season grasses.
4. A soil analysis is required for each site because some low-water-use turfgrasses, to be used as mowed lawn, may not perform as well as efficiently-irrigated Kentucky bluegrass, e.g. in sandy soils. For some functions, especially recreation, sports, high traffic areas, fire danger mitigation, or in erosion control swales, Kentucky bluegrass may be the optimal choice.

#### E. Standards and Plant List

Selection of ground plane vegetation shall comply with Appendix B and the standards of the Landscape Policy Manual. Alternative or new species or varieties may be approved, provided they comply with the intent of the Landscape Code.

5. Alternative warm season turf species such as Buffalo and Blue Grama grasses generally are more drought tolerant and adapted to the regional soil types. An additional benefit is that these alternatives generally do not require as much fertilizer, which can cause water pollution and imbalances in ecosystems.
6. Perennials contribute color and variety to the landscape. They are especially effective because the local growing season is relatively short, (approximately 148 days), and late spring frosts and snow can impact on the bloom of trees and shrubs
7. Ground covers are beneficial in solving problematic situations such as steep slopes or small and irregularly shaped areas that are unsuited to turf, visually linking larger plant material in groupings, and providing leaf texture and seasonal color.
8. Low shrubs and evergreens are often ideal selections for ground plane coverage, especially on slopes. Many ornamental grasses grow well in Colorado Springs, an area where the predominant indigenous vegetation consists of prairie and meadow grasses. A mix of grasses, shrubs and other ground plane selections provides a range of rooting systems that is typically more effective on slopes or erosion prone areas than a planting of a single species.
9. Administrative relief may allow flexibility where plants and their irrigation should be limited next to building foundations or where plazas or courtyards would provide a better design.

**10. Use of Mulch**

- A. Organic mulches shall be required in all non-turf planting areas.
- B. See use of mulch in Appendix H, Planting Details.
- C. Use of non-organic mulches that do not readily decompose, such as gravel and stones, are restricted to use for design purposes and where high winds make the use of organic mulch impractical.

**11. Stump Removal Standard**

Stumps of removed trees and shrubs shall be ground out to four inches (4") below grade in all site categories.

**D. Colorado Springs Utilities Standards**

All landscaping adjacent to, above, or beneath utilities shall comply with standards of the respective governing Utility and the Landscape Policy Manual.

**E. Electric Utility Constraints**

All improvements, including landscaping, must comply with all applicable requirements of the National Electrical Code.

- 2. The CSU Electric Utility is responsible for maintaining power line rights-of-way. Occasionally it may be necessary to prune or remove a tall tree within or near a right-of-way.
- 3. Landscaping shall comply with the provisions of the "Use of Electric Line Rights-of-Way by Other Parties", prepared by the CSU Electric Utility.

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**FIRE DEPARTMENT AND UTILITIES CONSTRAINTS**

**Chapter 7, Article 4, Section 318**

**A. Purpose**

Landscaping shall not interfere with the general function, safety or accessibility of any gas, electric, water, sewer, telephone, or drainage facilities, or other drainage or utility easements.

**B. Fire Department Constraints**

Landscaping shall be limited to an eight-inch (8") mature height within three feet (3') of a fire hydrant. 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 utilized by the Fire Department shall remain clear and unobstructed to a minimum height of thirteen feet, six inches (13'6") with widths as individually prescribed for the development.

**C. Wildfire Management Constraints**

In fire prone areas landscape fuel loading, slope and accessibility factors shall be evaluated with regard to fire hazard. The landscape design shall adhere to principles of fire mitigation such as higher water transition zones adjacent to structures (where expansive soil or hazardous geologic conditions do not exist), prohibition of large trees adjacent to structures, thinning of fuel species on slopes and adjacent to structures, site layout that permits ease of egress, and other standards determined by the State Forestry Department.

**Policy 318.**

- 1. Contact the Colorado Springs Fire Department for recommendations and/or details to satisfy the City's adopted Fire Code requirements.

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**MAINTENANCE OF REQUIRED LANDSCAPING**

**Chapter 7, Article 4, Section 319**

**A. Responsibilities**

The landowner and/or owners association shall be responsible for maintenance, in good condition and in the locations indicated on the approved landscape plan, of all vegetation, irrigation system, screening devices, and other landscape components so as to present a healthy, safe and orderly site.

**B. Maintenance Practices**

Maintenance shall consist of all regular and normal maintenance practices of landscaping including weeding, irrigation, fertilizing, pruning and mowing. Plant materials that exhibit significant levels of insects, pests, diseases and/or damage shall be appropriately treated, and all dead plant materials shall be removed and replaced with living plant materials where required on the approved landscape plan.

**C. Right-of Way Maintenance**

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.

**D. Erosion Control and Reclamation Areas**

Vegetative coverage in seeded site categories shall comply with the Landscape Policy Manual. All erosion control and reclamation areas indicated on the landscape plan shall be maintained by the property owner, who shall replace any dead vegetation as soon as practicable.

**E. Brush Management and Weed Control**

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.

**F. Public Safety and Visibility**

1. Visibility for police surveillance and crime prevention shall not be significantly hampered by landscaping.
2. Corner visibility for traffic movement and protection of pedestrians shall comply with Article 4, Part 1 of the Zoning Code.
3. Landscaping shall not prohibit access to utilities or hinder public safety, such as access to fire lanes and hydrants.

**G. Public Rights-of-Way Adjacent to Double Frontage Lot Streetscapes**

Maintenance shall be the responsibility of a special improvement maintenance district (SIMD) or a homeowners association as specified, with the exception of street trees maintained by the City Forester.

**Policy 319.****1. Approved Maintenance Practices**

- A. Apply fertilizer only on an as-needed basis and avoid excess application of fertilizer on turf and plants.
- B. Eliminate plant pests including weeds, deleterious insects and diseases.
- C. Maintain a three inch layer of mulch around shrubs and trees.
- D. Properly prune all plant to improve water-efficiency, correct damage and to encourage the naturalistic habit of the plant.
- E. Remove seasonal herbaceous growth after it dies.
- F. Maintain appropriate mowing height to reduce evaporation from the soil surface.
- G. Compost grass clippings where feasible.
- H. Maintain an irrigation system schedule that includes inspection, testing and repair using compatible components. Procedures include: cleaning of filters and strainers, flushing of irrigation lines and winterization, adjusting sprinkler patterns to maintain uniformity, calibration of sensing and recording equipment, adjustments of the controller schedule after the establishment period and for seasonal fluctuations.

- I. Repair irrigation system leaks and breaks to prevent water loss.

**2. Replacement Vegetation Standards**

- A. All plant material provided or preserved to meet the requirements of the Landscape Code, which is in poor health or not living shall be replaced with equivalent vegetation and maintained in good health throughout the life of the project.
- B. Should any existing plant material, which was retained for credit, die subsequent to issuance of a certificate of occupancy, it shall be replaced by the requisite number of living plants according to the standards established for each site category.

**3. Extra Plants**

Extra (non-required) plants, clearly labeled as such on the approved landscape plan, shall not require any financial assurance or replacement.



UNIT THREE —  
SITE CATEGORY  
REQUIREMENTS



**LANDSCAPE SETBACKS  
AND DOUBLE FRONTAGE  
LOT STREETSCAPES**

**Chapter 7, Article 4, Section 320**

**A. Intent and Purpose**

It is the intent of the City to establish landscape planting areas parallel to and including adjacent street rights-of-way (parkways), and along the non-street boundaries of zone districts. The areas shall contain plantings of trees and other live vegetation to provide a pleasing continuity of vegetation along the streetscape and zone boundary.

**B. Required Minimum Widths of Landscaped Setbacks**

The required width of the landscape setback is determined by the classification of the adjacent street right-of-way as designated on the Colorado Springs Major Thoroughfare Plan. These minimum setback widths, exclusive of the adjacent street right-of-way, are as follows:

1. Adjacent to a major arterial, expressway or freeway on the City's Major Thoroughfare Plan the landscape setback shall be at least twenty-five feet (25') wide.
2. Adjacent to a minor arterial on the City's Major Thoroughfare Plan the landscape setback shall be at least twenty feet (20') wide.
3. Adjacent to any non-arterial street the landscape setback shall be at least ten feet (10') wide.
4. Adjacent to a non-street boundary of a zone district: No minimum width is required; however, space must be provided for non-street boundary trees or, where applicable, landscape buffer requirements that conform to this Part.

**Policy 320.**

1. A copy of the City's Major Thoroughfare Plan is provided as Appendix C. A map of the State Highways within the City is provided as Appendix D.
2. The landscape setback may be approved at less than required depth on up to one-half of the street frontage if the average depth of the landscaped setback complies with the required depth. This type of Administrative Relief may allow for a desirable pedestrian-oriented space in lieu of a relatively short and narrow landscaped strip where site planning options are significantly limited.

3. Driveways and sidewalks to afford limited access may be allowed to interrupt this required space.
4. Public sidewalks may be permitted to "meander" into a required landscaped setback or double frontage lot streetscape area if landscaping is provided and maintained in the right-of-way to adequately compensate for the loss of landscaping in the setback or streetscape area.
5. No motor vehicle lots, or loading or utility service areas shall be permitted in a landscape setback.
6. Administrative Relief may be used to waive non-street, zone boundary trees if the subject boundary is located within a common parking lot planned for two adjoining districts, (such as an OC district and a PBC district). Parking lot trees, would be required, however.

**C. Required Minimum Widths of Double Frontage Lot Streetscapes**

The required width of the streetscape is determined by the classification of the adjacent street right-of-way as designated on the Colorado Springs Major Thoroughfare Plan. These minimum streetscape widths, exclusive of the adjacent street right-of-way, are as follows:

1. Adjacent to an expressway on the City's Major Thoroughfare Plan the double frontage lot streetscape shall be at least twenty-five feet (25') wide.
2. Adjacent to a major arterial on the City's Major Thoroughfare Plan the double frontage lot streetscape shall be at least fifteen feet (15') wide.
3. Adjacent to a minor arterial on the City's Major Thoroughfare Plan the double frontage lot streetscape shall be at least ten feet (10') wide.
4. Adjacent to any non-arterial street the double frontage lot streetscape shall be at least six feet (6') wide.

**D. Required Trees in Landscape Setbacks and Double Frontage Lot Streetscapes**

1. Each landscape setback or double frontage lot streetscape adjacent to a major arterial, expressway, or freeway on the City's Major Thoroughfare Plan shall contain at least one tree for every twenty linear feet (20') of setback, streetscape or fraction thereof, as measured from the corners of the property.
2. Each landscape setback or double frontage lot streetscape adjacent to a minor arterial on the City's Major Thoroughfare Plan shall contain at least one tree for every twenty-five linear feet (25') of set-

back, streetscape or fraction thereof, as measured from the corners of the property.

3. Each landscape setback or double frontage lot streetscape adjacent to any non-arterial street shall contain at least one tree for every thirty linear feet (30') of setback, streetscape or fraction thereof, as measured from the corners of the property.
4. Each landscape setback adjacent to a non-street, zone boundary shall contain at least one tree for every thirty linear feet (30') of non-street, zone boundary length. In lieu of a landscape setback, required trees shall be located in planters or planting areas that are a minimum of one hundred fifty (150) square feet in area for each tree. Trees shall be protected from vehicular damage.
5. Landscape setback and double frontage lot streetscape trees may be substituted with shrubs and ornamental grasses up to the percentage allowed in the Landscape Policy Manual.
7. Up to twenty-five percent (25%) of the required setback or streetscape trees may be substituted with shrubs and/or ornamental grasses.
  - a. Ten (10) shrubs with a minimum container size of five (5) gallons shall be provided for each tree that is replaced. And,
  - b. Two (2) ornamental grass clumps (indicated as equivalent in Appendix B) with a minimum container size of one (1) gallon may replace each shrub.
8. Up to twenty-five percent (25%) of the double frontage lot streetscape trees may be placed in the rear yard, behind the fence or wall. Any substituted shrubs or ornamental grasses shall be planted in the streetscape.
9. All double frontage lot streetscapes shall consist of low-water-use plants or plants adaptable to low-water-use conditions.
10. Landscape setback and double frontage lot streetscape trees shall not be located in the adjacent public right-of-way where street widening is anticipated, eg. at arterial intersections.

**E. Required Tree Spacing and Location**

1. Tree spacing shall accommodate the potential height and spread of the respective species as indicated in Appendix B of the Landscape Policy Manual.
2. The required landscaped setback, double frontage lot setback, and boundary trees may be clustered along a particular frontage or boundary.

3. The required landscaped setback trees may be located in a landscaped setback for which the depth provided is greater than the minimum required depth; however, the required trees shall be located within fifty feet (50') of the property line adjacent to the street.
4. The required non-street, zone boundary trees shall be located within fifty feet (50') of the non-street, zone boundary of the district.
5. The required landscaped setback or double frontage lot streetscape trees may be located in part or in total in the adjacent public right-of-way, provided:
  - a. The City Forester's standards for street trees are met in the case of a City street;
  - b. The CDOT District Engineer and City Forester approve the trees in the case of a State highway; and,
  - c. No conflicts exist with utility easements, drainage facilities or easements.
6. The required landscaped setback trees shall be located in the adjacent public right-of-way area if these trees cannot be placed in the landscaped setback area due to the existing development of the site. However, such trees are required only to the extent that:
  - a. The City Forester's standards for street trees are met in the case of a City street;
  - b. The CDOT District Engineer and City Forester approve the trees in the case of a State highway; and,
  - c. No conflicts exist with utility easements, drainage facilities or easements.

**F. Walls and Fences in the Landscape Setback**

Walls and fences that are in compliance with the standards of the Landscape Policy Manual are permitted in the landscape setback.

11. Walls and fences are permitted that complement the architectural components of the site, are sufficiently low or open to permit views for security and safety, and for which any opaque portion does not exceed a height of three feet (3') above grade at the base of the wall. Opaque walls and fences higher than three feet (3') (such as noise barriers) must be located outside of the landscaped setback to maintain a landscaped appearance along the street.

12. Administrative Relief may be granted for retaining walls higher than three feet (3') in a required landscaped setback where special grading conditions exist. Such retaining walls shall be visually softened by plantings of trees and shrubs.
13. A landscape credit of up to one (1) shrub for every five linear feet (5') of wall may be approved.

**G. Walls and Fences in the Double Frontage Lot Streetscape**

A wall or fence that is in compliance with the standards of the Landscape Policy Manual shall be required.

14. For double frontage lot streetscapes, pilasters of brick, concrete or stucco shall be required and located every sixty feet (60') on center or closer. A double-sided fence filled with noise absorbing material may be required to reduce traffic noise impacts adjacent to arterial streets.
15. Except in the case of a special improvement maintenance district (SIMD), a tract owned and maintained by a homeowners association is the preferred form of ownership of the double frontage lot streetscape.
16. The City Attorney and City Planning shall jointly review homeowner association covenants to ensure that an adequate maintenance entity with fund collection and enforcement powers is established.

**H. Parking Prohibitions**

The landscaped setback requirements in this Section are superseded, where applicable, by the front yard parking prohibitions in Article 4, Part 2, General Provisions, Restrictions and Prohibitions, of this Zoning Code. The front setback requirement and parking prohibition may cause a greater landscaped setback than required by this Section.

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**M O T O R V E H I C L E L O T S**

**Chapter 7, Article 4, Section 321**

**A. Intent and Purposes**

The intent of landscape requirements for motor vehicle lots is to reduce potentially negative visual, aesthetic and environmental effects. The purposes of the requirements are to:

1. Conduct any necessary grading in a manner that closely follows the existing natural contours of the land, or modify the land in ways that create spaces that can be reasonably landscaped and maintained.
2. Filter and reduce the glare of reflected sunlight and headlights.
3. Mitigate the impact of fumes, dust, wind, noise and gaseous pollutants.
4. Reduce the rate of stormwater runoff and increase groundwater recharge by the use of pervious areas.
5. Enhance the motor vehicle lot by providing shade, visually screening parked cars, and dividing large expanses of pavement.
6. Reinforce separation of pedestrians and vehicles to facilitate traffic flow and safety.
7. Establish a harmonious landscape theme among architecturally diverse buildings and with the adjacent street.

**B. Landscaping Requirements**

Landscaping of open, off-street motor vehicle lots is required. Landscaping within or adjacent to motor vehicle lots shall consist of required trees, screening vegetation or devices, and ground plane cover, and shall be subject to the following conditions and requirements:

1. Landscaping outside of motor vehicle lots may not be used to meet the internal landscaping requirement.
2. The required minimum standards for planters, plant materials, and spacing shall comply with standards in the Landscape Policy Manual.

**C. Tree Requirements**

1. In any motor vehicle lot with fifteen (15) or more vehicular spaces that is not inside a garage, at least one (1) shade tree shall be provided for every fifteen (15) vehicular spaces or fraction thereof.
2. Shade tree plantings shall be within or adjacent to the motor vehicle lot, clustered, or planted singly in planters, tree islands at the end of parking bays, in medians, between rows of cars, or as part of a continuous landscape strip. Planters shall conform to the Landscape Policy Manual standards.
3. All motor vehicle lots that share unified ingress or egress shall be considered as a single motor vehicle lot for the purpose of computing the required number of trees, notwithstanding ownership.

**Policy 321.**

1. Coniferous evergreen trees may be approved if such trees are planted in areas that exceed the minimum planter size where necessary to prevent hazards to traffic or pedestrian visibility.
2. In the case of an automobile sales business one parking space shall be equal to every two hundred fifty (250) square feet or fraction, thereof in area used for display or storage.
3. **Planter Standards**
  - A. Where motor vehicle lot soil has been compacted by grading operations, the soil of any planter within the lot shall be structurally renovated (tilled) or removed to a depth of thirty inches (30") and replaced with an acceptable growing medium for the species indicated for installation.
  - B. Any tree planting space (planter) within a motor vehicle lot shall be at least three hundred (300) square feet in size to provide adequate soil rooting space.
  - C. Where more than one tree occupies any motor vehicle lot planter, each tree shall be allocated at least one hundred fifty (150) square feet of planter space (or the equivalent soil rooting volume) per tree.
  - D. Minimum motor vehicle lot planter width shall be ten feet (10').
  - E. Required trees may be planted in other site category areas, provided they are located within five to eight feet (5' - 8') of a paved motor vehicle lot, and tree spacing requirements are maintained.
  - F. Spacing of trees and shrubs shall be consistent with the ranges of height and spread for the respective species indicated in Appendix B.

**D. Tree Preservation as Alternative Compliance**

In lieu of the required one (1) shade tree for every fifteen (15) vehicular spaces or fraction thereof, tree preservation as credit may be approved in accordance with Article 4, Part 2 and 3 of the Zoning Code.

**E. Required Screening**

1. Open, vehicular spaces shall be screened from view from adjacent streets and properties.
2. The screen shall be provided for at least two-thirds (2/3) of each frontage of any applicable motor vehicle lot. The width of intersecting driveways shall not be included in the calculation of length.

3. Screening shall consist of plantings or a combination of plantings and berms that have an eventual height of at least three feet (3'), and meet the requirements and the standards of the Landscape Policy Manual.
4. Structures such as decorative walls or fences may be permitted, provided the reviewing planner finds that:
  - a. The total use of plantings and/or berms is not physically feasible, and
  - b. The structures attractively complement the use of plantings and/or berms, or
  - c. The structures avoid a blank and monotonous appearance by such measures as architectural articulation and the planting of vines, shrubs or trees.
5. Parking garages shall be screened from streets and adjacent properties by vegetation in compliance with 7.4.323, Landscape Buffers and Screens.

**4. Vehicle Lot Screening Standards**

- A. In general, the reference elevation for the base of the required vehicle lot screen shall be the surface of the vehicular space that is to be screened.
  - B. The height of screening plants shall be consistent with the mature heights indicated in Appendix B.
  - C. Spacing of screening plants shall be consistent with the range for typical spread for the species as indicated in Appendix B.
  - D. At least fifty percent (50%) of required screening plants shall be needled or broad-leaved evergreen plants.
  - E. Earthen berms shall conform to the slope and berm standards of Policy 313.
- E. Safe Sight Distances and Security**  
 Plantings shall comply with Article 4, Part 1 for corner visibility at all points of access to and from a street, and shall not significantly inhibit the view into motor vehicle lots for security purposes.

**INTERNAL LANDSCAPING****Chapter 7, Article 4, Section 322****A. Purpose**

The purpose of internal landscaping requirements is to augment landscape setback, buffer and motor vehicle lot landscaping requirements in the following ways:

1. Internal landscaping shall visually soften the mass of buildings and visually separate building areas from motor vehicle lots.
2. Internal landscaping shall be adapted to the site, reflect the varying microclimates and respective building facade orientations, and visually tie the buildings and motor vehicle lots to the site and to the larger regional context.

**B. Internal Area and Tree Requirements**

Internal landscaping requirements and tree quantities shall apply to development projects in all zone districts as follows:

1. Nonresidential projects in any zone district:
  - a. Minimum internal landscaping area: Five percent (5%) of the site's net area (site's area excluding adjacent public streets).
  - b. Minimum number of trees: At least one tree for every five hundred (500) square feet of the required minimum internal landscaping area.
  - c. Up to one hundred percent (100%) of the required trees may be substituted by shrubs.
2. Multi-family projects in any zone district:
  - a. Minimum internal landscaping area: Fifteen percent (15%) of the site's net area (site's area excluding adjacent public streets).
  - b. Minimum number of trees: At least one tree for every five hundred (500) square feet of the required minimum internal landscaping area.
  - c. Up to fifty percent (50%) of the required trees may be substituted by shrubs.

**Policy 322.**

1. Shrub substitutes for trees are allowed at a ratio of ten (10) shrubs, with a container size of five (5) gallons, for one (1) tree. Shrub bed area for each substitute shrub shall be at least fifteen (15) square feet.
2. Ornamental grass substitutes for shrubs are allowed at a ratio of two (2) grass clumps (indicated as equivalent in Appendix B), with a con-

tainer size of one (1) gallon, for one shrub.

3. Each building area within a development plan (with multiple building areas) is not required to meet the five percent (5%) internal landscaping requirement, as long as the entire development plan complies with the internal landscaping requirement. The internal landscaping should be generally distributed among the building areas with an emphasis near those building elevations, which form the major public views of the project.

**C. Acceptable Locations for Internal Landscaping**

The location of areas credited toward the minimum internal landscaping area requirement shall be consistent with the provisions of the Landscape Policy Manual.

4. To be credited toward the minimum internal landscaping area requirement, a landscaped area shall be located as follows:
  - A. Adjacent to those building elevations that form major public views of the project from adjacent streets and properties and to the users of the project, or
  - B. Within a plaza or courtyard between buildings or portions of buildings, or
  - C. In a space provided to separate building areas from parking areas, or
  - D. In an "oasis" area of the site with intensive plantings near building entrances or pedestrian gathering places or in motor vehicle lots, or
  - E. In a similar location that substantially conforms to the stated purpose of the required internal landscaping area (see above), if approved by City Planning.
5. Motor vehicle lot tree planters may be credited as internal landscaping where shrubs with a minimum container size of five (5) gallons and/or equivalent grasses (indicated in Appendix B) with a minimum container size of one (1) gallon are used as ground cover in the tree planters.
6. Internal landscaping is to provide relief from structures and hard surfaces in a project through the use of plantings. Therefore, sidewalks that provide basic pedestrian circulation only shall not be credited toward the minimum internal landscaping area requirement.
7. Paved plazas may be credited to a maximum of fifty percent (50%) of the required internal landscaping area if such plazas have trees that provide visual relief to those building elevations that form major public views of the project.
8. Administrative Relief may be granted to the internal landscaping requirement for heavy in-

dustrial projects such as cement plants and heavy equipment storage yards. Internal landscaping may be inappropriate within the manufacturing and storage areas of such projects. The area may be allowed to be exempted from the site area calculation (of which five percent (5%) must be landscaped). Internal landscaping may be required, however, adjacent to the main entrances and/or office acres of such projects.

- 9. That portion of a landscape setback that is in excess of the minimum depth may be approved by City Planning to be credited toward the required internal landscaping.

**D. Tree Setbacks from Adjacent Buildings and Pavement**

Plant spacing shall allow for the growth characteristics of trees without adversely affecting the maintenance or use of structures, walks, or drives. Setback distances from buildings shall allow for mature growth of trees in accordance with Appendix B of the Landscape Policy Manual.

**10. Internal Landscaping Planting Standards**

- A. Microclimates adjacent to each building facade shall be identified and appropriately planted.
- B. Vegetation planted adjacent to buildings shall be setback at least one-half of the minimum typical spread for the species as indicated in Appendix B.
- C. Any planting area adjacent to a building shall be a minimum of three feet (3') wide in any direction.
- D. Plaza planters shall provide an area of at least 150 square feet for each tree.

the demolition, alteration or removal of any existing structures. However, demolition or removal of any structure occupying a buffer shall cause the full buffer requirement to be applied to the space so vacated.

**C. Required Buffers and Screens**

Landscape buffers or screens are required in the following locations:

- 1. A buffer is required between a nonresidential use and a residential use or vacant residentially zoned property where such uses are separated by a non-arterial street or a public alley.
- 2. A buffer is required along the common property line between an adjacent nonresidential use and a residential use or vacant residentially zoned property.
- 3. A buffer is required between a multi-family residential use and a one-family or two family residential use or vacant one-family or two-family zoned property.
- 4. A buffer is required between a nonresidential or multi-family use and a property zoned PK (Public Park).
- 5. A screen is required around any refuse collection areas, including trash bins.
- 6. A screen from view from adjacent properties and streets is required for any loading or utility service area, vehicle repair bay, or vehicle fueling area.

**Policy 323.**

- 1. Required screening for loading and utility service areas, vehicle repair bays and vehicle fueling areas may not be necessary in all situations. For example, it is not necessary to screen a loading dock on one industrial property from the view from a loading dock on an adjacent industrial property, if there are no other major public views of the loading dock.

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**L A N D S C A P E B U F F E R S A N D S C R E E N S**

**Chapter 7, Article 4, Section 323**

**A. Purpose**

Landscape buffers and screens shall be provided between incompatible land uses that are either adjacent to or directly across from each other. Screening shall provide visual barriers between different land uses, enhance the streetscape, provide privacy, and protect uses from wind, dust, noise, traffic, glare, visual disorder, and harmful or noxious effects.

**B. Existing Structures**

No buffer requirement shall be construed as mandating

**D. Locations**

Landscape buffers and screens shall be located entirely on site.

**E. Required Widths**

- 1. A buffer shall be at least fifteen feet (15') wide where required.
- 2. A screen consisting of vegetation shall be at least six feet (6') wide where required, except for motor vehicle lot screening that conforms to this Section.

**F. Required Trees and Spacing**

1. At least one (1) tree shall be planted for every twenty (20) linear feet of buffer length or fraction thereof.
2. At least fifty percent (50%) of the plantings shall be evergreen.
3. Tree spacing shall be based on the potential heights and spreads of the individual species as indicated in Appendix B of the Landscape Policy Manual.
  2. When buffer landscaping abuts an existing wall on an adjacent lot, and with the written permission the owner of the wall, vines on the wall may be substituted for up to one-third of the required trees.

**G. Required Fences and Architectural Screens**

An opaque structure shall be required along the inside edge (private property side) of any required buffer.

3. The minimum standards of the buffer may be varied to reflect the varying interface of the uses. For example, the required opaque structure may not be required between two landscaped spaces.
4. The requirement for an opaque structure in a buffer between non-residential and residential uses separated by a non-arterial street may be waived through Administrative Relief if City Planning finds that the structure is not necessary for the protection of the privacy and quiet of the nearby residential use or zone.

**H. Screen Height**

1. A required opaque structure (fence or wall) shall be at least six feet (6') in height or as otherwise specified in the Landscape Policy Manual.
2. A required vegetation screen shall be at least six feet (6') in height, except for motor vehicle lot screening required in this Part.

**5. Buffer and Screen Planting Standards**

- A. Spacing of buffer and screening plants shall be consistent with the range for typical spread for the species as indicated in Appendix B.
- B. At least fifty percent (50%) of required buffer and screening plants shall be needled or broad-leaved evergreen plants.
- C. Fastigate forms of species are recommended.

**STREET TREES IN PARKWAYS****Chapter 7, Article 4, Section 324****A. Purpose**

Street trees in parkways are intended to provide a canopy along the street, contribute to spatial definition and human scale, and to provide shade and mitigate deleterious effects of the urban environment.

**B. Authority**

The City Forester shall administer the standards for street trees and review the species selection, sizes, locations, and spacing.

**C. Tree Selections**

Species selection shall comply with the City Forester's publication "Trees for Colorado Springs" or, with approval, those trees designated as street trees in Appendix B of the Landscape Policy Manual.

**D. Street Parkway Width Standards**

The provision of trees within parkways shall comply with the standards of the Landscape Policy Manual and the "Forestry Rules and Regulations" of the City Forester.

**Policy 324.****1. Parkway Planting Standards**

- A. Street trees shall be selected from Appendix B or from the "Trees for Colorado Springs" list provided by the City Forester.
- B. A permit shall be secured from the City Forester prior to planting any tree in a parkway.
- C. Trees shall be located at least five feet (5') from the face of curb along major or minor arterials on the City Major Thoroughfare Plan. Otherwise, trees shall be centered within the planting area of a parkway. The planting area of a parkway shall not be less than four feet (4') wide.
- D. In parkways with attached sidewalks, trees shall be planted at least five feet (5') from the sidewalk.
- E. No tree shall be planted closer than five feet (5') to any driveway, nor be planted so as to eventually obstruct any public or utility improvement.
- F. The fifty-five foot (55') corner visibility triangle shall be kept free of obstructions so that traffic visibility is not obscured. Trees shall not be planted closer than forty feet (40') to any street corner. No other plantings may exceed thirty inches (30")

at mature height above the curb within the corner visibility triangle.

- G. Trees shall be located and maintained to preserve a clear zone of at least six feet from fire hydrants, utility poles, street light standards and above ground utility structures such as transformer enclosures.
- H. Trees shall be planted at least three feet (3') from underground utilities such as sewer, water, gas, electric and telephone. Contact Utility Locators at (800) 922-1987 before digging.
- I. Tree species for planting under utility lines shall be selected from Appendix B based on the height and spread indicated for the species. Height range shall not exceed twenty-five feet (25').
- J. Tree sizes and spacing for planting in parkways shall conform to the range of average mature spread for each respective species in Appendix B or to the Forestry Rules and Regulations provided by the City Forester.
- K. Substitutions of tree species in parkways shall be approved by the City Forester.

## **2. New Home Tree Program**

The new home tree program is administered by City Forestry under Chapter 4, Article 4, Part 3 (Street Tree Fee, Fund) of the City Code to encourage planting of street trees along the arterial or collector street frontages of single family and two family residential lots.

# Appendix A: Regional Plant Communities

| 1. Semiarid Shrublands                                       |  | 2. Pinon-Juniper Woodlands                                   |  |
|--|--|--|--|
| <b>No Regionally Occurring Native Trees</b>                  | <i>Seriphidium canum</i> (syn: <i>Artemisia cana</i> )<br>Sagebrush: Silver          | <b>Regionally Occurring Native Trees</b>                     | <i>Gutierrezia sarothrae</i><br>Snakeweed: Broom                                     |
| <b>Regionally Occurring Native Shrubs</b>                    | <i>Seriphidium tridentatum</i> (syn: <i>Artemisia tridentata</i> )<br>Sagebrush: Big | <i>Juniperus monosperma</i><br>Juniper: One-seed             | <i>Holodiscus dumosus</i><br>Mountain Spray  |
| <i>Amelanchier utahensis</i><br>Serviceberry: Utah           | <i>Tetradymia spinosa</i><br>Horsebrush: Spiny                                       | <i>Juniperus scopulorum</i><br>Juniper: Rocky Mountain       | <i>Juniperus communis</i><br>Juniper: Common   |
| <i>Artemisia filifolia</i><br>Sagebrush: Sand                | <i>Yucca glauca</i><br>Yucca: Narrow-leaf  | <i>Pinus edulis</i><br>Pine: Pinon                           | <i>Philadelphus microphyllus</i><br>Mockorange: Little-leaf                          |
| <i>Atriplex canescens</i><br>Saltbush: Four-wing             |  | <i>Pinus ponderosa</i><br>Pine: Ponderosa                    | <i>Purshia tridentata</i><br>Antelope Bitterbrush                                    |
| <i>Atriplex confertifolia</i><br>Saltbush: Spiny             |  | <b>Regionally Occurring Native Shrubs</b>                    | <i>Quercus gambelii</i><br>Oak: Gambel's   |
| <i>Chrysothamnus depressus</i><br>Rabbitbrush                |  | <i>Amelanchier alnifolia</i><br>Serviceberry: Saskatoon      | <i>Rhus aromatica</i><br>Sumac: Fragrant   |
| <i>Chrysothamnus nauseosus</i><br>Rabbitbrush                |  | <i>Amelanchier utahensis</i><br>Serviceberry: Utah           | <i>Rhus trilobata</i><br>Sumac: Three-leaf   |
| <i>Cowania mexicana</i><br>Cliffrose: Mexican                |  | <i>Amorpha fruticosa</i><br>Indigo Bush                      | <i>Ribes aureum</i><br>Currant: Golden   |
| <i>Echinocereus triglochidiatus</i><br>Cactus: Claret Cup    |  | <i>Atriplex canescens</i><br>Saltbush: Four-winged           | <i>Ribes cereum</i><br>Currant: Wax  |
| <i>Echinocereus viridiflorus</i><br>Cactus: Hedgehog         |  | <i>Atriplex confertifolia</i><br>Saltbush: Spiny             | <i>Ribes inerme</i><br>Gooseberry  |
| <i>Eleagnus commutata</i><br>Silverberry                     |  | <i>Cercocarpus ledifolius</i><br>Mahogany: Curl-leaf         | <i>Seriphidium tridentatum</i> (syn: <i>Artemisia tridentata</i> )<br>Sagebrush: Big |
| <i>Eurotia lanata</i> (syn: <i>Ceratoides</i> )<br>Winterfat |  | <i>Cercocarpus montanus</i><br>Mahogany: Mountain            | <i>Shepherdia canadensis</i><br>Buffaloberry: Canada                                 |
| <i>Gutierrezia sarothrae</i><br>Snakeweed: Broom             |  | <i>Chamaebatiaria millefolium</i><br>Fernbush                | <i>Yucca glauca</i><br>Yucca: Narrow-leaf  |
| <i>Opuntia imbricata</i><br>Cactus: Cholla                   |  | <i>Chrysothamnus nauseosus</i><br>Rabbitbrush                |  |
| <i>Prunus besseyi</i><br>Cherry: Sand                        |  | <i>Clematis ligusticifolia</i><br>Virgin's Bower             |  |
| <i>Prunus pensylvanica</i><br>Cherry: Pin                    |  | <i>Coryphantha vivipara</i><br>Cactus: Spiny Star            |  |
| <i>Prunus virginiana melanocarpa</i><br>Chokecherry          |  | <i>Cowania mexicana</i><br>Cliffrose                         |  |
| <i>Purshia tridentata</i><br>Antelope Bitterbrush            |  | <i>Echinocereus triglochidiatus</i><br>Cactus: Claret Cup    |  |
| <i>Rosa woodsii</i><br>Rose: Woods                           |  | <i>Echinocereus viridiflorus</i><br>Cactus: Hedgehog         |  |
| <i>Rubus deliciosus</i><br>Raspberry: Boulder                |  | <i>Ephedra viridis</i> , <i>E. torreyana</i><br>Mormon Tea   |  |
| <i>Rubus idaeus</i><br>Raspberry                             |  | <i>Eurotia lanata</i> (syn: <i>Ceratoides</i> )<br>Winterfat |  |
| <i>Sarcobatus vermiculatus</i><br>Greasewood                 |  | <i>Fallugia paradoxa</i><br>Apache Plume                     |  |
|  |  | <i>Fendlera rupicola</i><br>Mockorange: False                |  |

| 3. Praire  | 4. Lower Elevation Riparian   |  |
|--|---|--|
| <p><b>No Regionally Occurring Native Trees</b></p> <p><b>Regionally Occurring Native Shrubs</b></p> <p><i>Amorpha fruticosa</i><br/>Indigo Bush</p> <p><i>Artemisia filifolia</i><br/>Sagebrush: Sand</p> <p><i>Atriplex gardneri</i><br/>Saltbush: Silverscale</p> <p><i>Atriplex canescens</i><br/>Saltbush: Four-wing</p> <p><i>Chrysothamnus nauseosus</i><br/>Rabbitbrush</p> <p><i>Chrysothamnus viscidiflorus</i><br/>Rabbitbrush: Green</p> <p><i>Coryphantha vivipara</i><br/>Cactus: Spiny Star</p> <p><i>Echinocereus viridiflorus</i><br/>Cactus: Hedgehog</p> <p><i>Eurotia lanata</i> (syn: <i>Ceratoides</i>)<br/>Winterfat</p> <p><i>Gutierrezia sarothrae</i><br/>Snakeweed: Broom</p> <p><i>Opuntia imbricata</i><br/>Cactus: Cholla</p> <p><i>Opuntia spp.</i><br/>Cactus: Prickly-pear</p> <p><i>Rhus aromatica</i><br/>Sumac: Fragrant</p> <p><i>Rhus trilobata</i><br/>Sumac: Three-leaf, Skunkbush</p> <p><i>Sarcobatus vermiculatus</i><br/>Greasewood</p> <p><i>Seriphidium tridentatum</i> (syn: <i>Artemisia tridentata</i>)<br/>Sagebrush: Big</p> <p><i>Yucca glauca</i><br/>Yucca: Narrow-leaf</p> | <p><b>Regionally Occurring Native Trees</b></p> <p><i>Acer negundo</i><br/>Boxelder</p> <p><i>Betula occidentalis</i><br/>Birch: Western</p> <p><i>Celtis occidentalis</i><br/>Hackberry</p> <p><i>Celtis reticulata</i><br/>Hackberry: Netleaf</p> <p><i>Populus x acuminata</i><br/>Cottonwood: Lanceleaf</p> <p><i>Populus angustifolia</i><br/>Cottonwood: Narrow-leaf</p> <p><i>Populus fremontii</i><br/>Cottonwood: Fremont</p> <p><i>Populus sargentii</i><br/>Cottonwood: Plains</p> <p><i>Salix amygdaloides</i><br/>Willow: Peach-leaved</p> <p><b>Regionally Occurring Native Shrubs</b></p> <p><i>Amelanchier canadensis</i><br/>Serviceberry: Shadblow</p> <p><i>Amorpha fruticosa</i><br/>Indigo Bush</p> <p><i>Cornus stolonifera</i><br/>Dogwood: Red-osier</p> <p><i>Parthenocissus vitacea</i><br/>Thicket Creeper</p> <p><i>Prunus americana</i><br/>Plum: American</p> <p><i>Prunus besseyi</i><br/>Cherry: Sand</p> <p><i>Prunus pennsylvanica</i><br/>Cherry: Pin</p> <p><i>Prunus virginiana melanocarpa</i><br/>Chokecherry</p> <p><i>Rhus aromatica</i><br/>Sumac: Fragrant</p> <p><i>Rhus trilobata</i><br/>Sumac: Three-leaf</p> <p><i>Robinia neomexicana</i><br/>Locust: New Mexican</p> <p><i>Ribes aureum</i><br/>Currant: Golden</p> <p><i>Ribes cereum</i><br/>Currant: Wax</p> | <p><i>Ribes inerme</i><br/>Gooseberry</p> <p><i>Rosa woodsii</i><br/>Rose: Woods</p> <p><i>Rubus deliciosus</i><br/>Raspberry: Boulder</p> <p><i>Rubus idaeus</i><br/>Raspberry: Red</p> <p><i>Rubus parviflorus</i><br/>Thimbleberry</p> <p><i>Salix exigua</i><br/>Willow: Coyote</p> <p><i>Sambucus cerulea</i><br/>Elder: Blue</p> <p><i>Shepherdia argentea</i><br/>Buffaloberry: Silver</p> <p><i>Symphoricarpos albus</i><br/>Snowberry: common</p> <p><i>Symphoricarpos oreophilus</i><br/>Snowberry: Mountain</p> <p><i>Vitis riparia</i><br/>Grape: Wild</p> <p><b>Historically Adapted Trees</b></p> <p><i>Fraxinus pennsylvanica</i><br/>Ash: Green</p> <p><i>Populus deltoides</i><br/>Cottonwood: Common</p> <p><i>Ulmus pumila</i><br/>Elm: Siberian</p> <p><i>Robinia pseudoacacia</i><br/>Locust: Black</p> <p><i>Eleagnus angustifolia</i><br/>Russian Olive</p> <p><b>Historically Adapted Shrubs</b></p> <p><i>Parthenocissus quinquefolia</i><br/>Virginia Creeper, Woodbine</p> <p><i>Salix fragilis</i><br/>Willow: Crack</p> <p><i>Salix purpurea</i><br/>Willow: Basket</p> <p><i>Tamarix ramosissima</i><br/>Tamarix</p> |

5. Foothill Shrublands

**Regionally Occurring Native Trees**

- Acer glabrum*  
Maple: Rocky Mountain
- Betula occidentalis*  
Birch: Western
- Crataegus erythropoda*  
Hawthorn
- Crataegus macrantha*  
Hawthorn: Redhaw
- Juniperus monosperma*  
Juniper: One-seed
- Juniperus scopulorum*  
Juniper: Rocky Mountain
- Populus angustifolia*  
Cottonwood: Narrowleaf
- Prunus americana*  
Plum: American
- Robinia neomexicana*  
Locust: New Mexican

**Regionally Occurring Native Shrubs**

- Amelanchier alnifolia*  
Serviceberry: Saskatoon
- Amelanchier canadensis*  
Serviceberry: Shadblow
- Amelanchier utahensis*  
Serviceberry: Utah
- Amorpha canescens*  
Leadplant
- Amorpha fruticosa*  
Indigo Bush
- Artemisia filifolia*  
Sagebrush: Sand
- Atriplex canescens*  
Saltbush: Four-wing
- Atriplex confertifolia*  
Saltbush: Spiny
- Ceanothus fendleri*  
Buckbrush: Fendler's
- Cercocarpus ledifolius*  
Mahogany: Curl-leaf
- Cercocarpus montanus*  
Mahogany: Mountain
- Chrysothamnus depressus*  
Rabbitbrush
- Chrysothamnus nauseosus*  
Rabbitbrush

- Clematis ligusticifolia*  
Virgin's Bower
- Cowania mexicana*  
Cliffrose: Mexican
- Echinocereus viridiflorus*  
Cactus: Hedgehog
- Eleagnus commutata*  
Silverberry
- Eurotia lanata* (syn: *Ceratoides*)  
Winterfat
- Fallugia paradoxa*  
Apache Plume
- Forestiera neomexicana*  
Privet: New Mexican
- Holodiscus dumosus*  
Mountain Spray
- Jamesia americana*  
Waxflower
- Mahonia repens*  
Grapeholly: Creeping
- Opuntia polyacantha, O. macrorhiza*  
Cactus: Prickly-pear
- Parthenocissus vitacea*  
Thicket Creeper
- Pediocactus simpsonii*  
Cactus: Mountain Ball
- Physocarpus monogynus*  
Ninebark: Mountain
- Physocarpus opulifolius*  
Ninebark: Common
- Potentilla fruticosa*  
Potentilla: Shrubby
- Prunus besseyi*  
Cherry: Sand
- Prunus pensylvanica*  
Cherry: Pin
- Prunus virginiana melanocarpa*  
Chokecherry
- Purshia tridentata*  
Antelope Bitterbrush
- Quercus gambelii*  
Oak: Gambel's
- Rhamnus cathartica*  
Buckthorn: Common
- Rhus aromatica*  
Sumac: Fragrant
- Rhus glabra*  
Sumac: Smooth

- Rhus glabra cismontana*  
Sumac: Rocky Mountain
- Rhus trilobata*  
Sumac: Three-leaf
- Rhus typhina*  
Sumac: Staghorn
- Ribes aureum*  
Currant: Golden
- Ribes cereum*  
Currant: Wax
- Ribes inerme*  
Gooseberry
- Rosa woodsii*  
Rose: Woods
- Rubus deliciosus*  
Raspberry: Boulder
- Rubus idaeus ssp. melanolasius*  
Raspberry: Wild
- Rubus parviflorus*  
Thimbleberry
- Seriphidium canum* (syn: *Artemisia cana*)  
Sagebrush: Silver
- Seriphidium tridentatum* (syn: *Artemisia tridentata*)  
Sagebrush: Big
- Shepherdia canadensis*  
Buffaloberry: Canada
- Symphoricarpos oreophilus*  
Snowberry: Mountain
- Yucca glauca*  
Yucca: Narrow-leaf

**Historically Adapted Trees**

- Fraxinus pennsylvanica*  
Ash: Green
- Ulmus pumila*  
Elm: Siberian

**Historically Adapted Shrubs**

- Parthenocissus quinquefolia*  
Virginia Creeper
- Lonicera tatarica*  
Honeysuckle

## 6. Ponderosa Pine Forest

**Regionally Occurring Native Trees**

*Abies concolor*  
Fir: White

*Acer glabrum*  
Maple: Rocky Mountain

*Juniperus monosperma*  
Juniper: One-seed

*Juniperus scopulorum*  
Juniper: Rocky Mountain

*Picea pungens*  
Spruce: Blue

*Pinus edulis*  
Pine: Piñon

*Pinus flexilis*  
Pine: Limber

*Pinus ponderosa*  
Pine: Ponderosa

*Pinus strobiformis*  
Pine: Southwestern White

*Populus tremuloides*  
Aspen: Quaking

*Pseudotsuga menziesii*  
Douglas-fir

**Regionally Occurring Native Shrubs**

*Arctostaphylos uva-ursi*  
Kinnikinnick

*Ceanothus fendleri*  
Buckbrush: Fendler's

*Cercocarpus montanus*  
Mahogany: Mountain

*Echinocereus viridiflorus*  
Cactus: Hedgehog

*Holodiscus dumosus*  
Mountain Spray

*Jamesia americana*  
Waxflower

*Juniperus communis*  
Juniper: Common

*Lonicera involucrata*  
Twinberry

*Mahonia repens*  
Grapeholly

*Physocarpus opulifolius*  
Ninebark: Common

*Potentilla fruticosa*  
Potentilla: Shrubby

*Prunus americana*  
Plum: American

*Prunus pensylvanica*  
Cherry: Pin

*Prunus virginiana melanocarpa*  
Chokecherry

*Purshia tridentata*  
Antelope Bitterbrush

*Quercus gambelii*  
Oak: Gambel's

*Rhus aromatica*  
Sumac: Fragrant

*Rhus glabra*  
Sumac: Smooth

*Rhus glabra cismontana*  
Sumac: Rocky Mountain

*Rhus trilobata*  
Sumac: Three-leaf

*Ribes aureum*  
Currant: Golden

*Ribes cereum*  
Currant: Wax

*Ribes inerme*  
Gooseberry

*Robinia neomexicana*  
Locust: New Mexican

*Rosa woodsii*  
Rose: Woods

*Rubus idaeus ssp. melanolasius*  
Raspberry: Wild

*Rubus deliciosus*  
Raspberry: Boulder

*Seriphidium tridentatum* (syn:  
*Artemisia tridentata*)  
Sagebrush: Big

*Shepherdia canadensis*  
Buffaloberry: Canada

*Yucca glauca*  
Yucca: Narrow-leaf

**Historically Adapted Shrubs**

*Lonicera tatarica*  
Honeysuckle

*Rhus typhina*  
Sumac: Staghorn

7. Upper Elevation Riparian

**Regionally Occurring Native Trees**

- Abies concolor*  
Fir: White
- Abies lasiocarpa*  
Fir: Subalpine
- Acer grandidentatum*  
Maple: Canyon
- Acer negundo*  
Boxelder
- Alnus tenuifolia*  
Alder: Mountain
- Amelanchier utahensis*  
Serviceberry: Utah
- Betula fontinalis*  
Birch: River
- Betula occidentalis*  
Birch: Western
- Celtis occidentalis*  
Hackberry
- Corylus cornuta*  
Hazelnut: Beaked
- Picea pungens*  
Spruce: Colorado Blue
- Pinus ponderosa*  
Pine: Ponderosa
- Populus x acuminata*  
Cottonwood: Lanceleaf
- Populus angustifolia*  
Cottonwood: Narrowleaf
- Populus balsamifera*  
Poplar: Balsam
- Populus sargentii*  
Cottonwood: Plains
- Pseudotsuga menziesii*  
Douglas-fir
- Salix amygdaloides*  
Willow: Peach-leaf
- Sorbus scopulina*  
Ash: Mountain

**Regionally Occurring Native Shrubs**

- Acer glabrum*  
Maple: Rocky Mountain
- Amelanchier alnifolia*  
Serviceberry: Saskatoon
- Amelanchier canadensis*  
Serviceberry: Shadblow
- Betula glandulosa*  
Birch: Bog

- Clematis ligusticifolia*  
Virgin's Bower
- Cornus stolonifera* (syn: *C. sericea*)  
Dogwood: Red-osier
- Crataegus erythropoda*  
Hawthorn
- Lonicera involucrata*  
Twinberry
- Parthenocissus vitacea*  
Thicket Creeper
- Potentilla fruticosa*  
Potentilla: Shrubby
- Prunus americana*  
Plum: American
- Prunus pensylvanica*  
Cherry: Pin
- Prunus virginiana melanocarpa*  
Chokecherry
- Quercus gambelii*  
Oak: Gambel's
- Ribes aureum*  
Currant: Golden
- Ribes inerme*  
Gooseberry: Common
- Rhus glabra*  
Sumac: Smooth
- Rhus glabra cismontana*  
Sumac: Rocky Mountain
- Robinia neomexicana*  
Locust: New Mexican
- Rosa woodsii*  
Rose: Woods
- Rubus deliciosus*  
Raspberry: Boulder
- Rubus parviflorus*  
Thimbleberry
- Salix exigua*  
Willow: Coyote
- Salix lutea*  
Willow: Yellow
- Sambucus cerulea*  
Elder: Blue
- Shepherdia argentea*  
Buffaloberry: Silver
- Symphoricarpos oreophilus*  
Snowberry: Mountain

**Historically Adapted Trees**

- Eleagnus angustifolia*  
Russian Olive
- Fraxinus pennsylvanica*  
Ash: Green
- Ulmus pumila*  
Elm: Siberian

**Historically Adapted Shrubs**

- Lonicera tatarica*  
Honeysuckle
- Parthenocissus quinquefolia*  
Virginia Creeper

## 8. Douglas-fir Forest

**Regionally Occurring Native Trees**

*Abies concolor*  
Fir: White

*Abies lasiocarpa*  
Fir: Subalpine

*Juniperus monosperma*  
Juniper: One-seed

*Juniperus scopulorum*  
Juniper: Rocky Mountain

*Picea englemannii*  
Spruce: Englemann

*Picea pungens*  
Spruce: Colorado Blue

*Pinus contorta*  
Pine: Lodgepole

*Pinus flexilis*  
Pine: Limber

*Pinus ponderosa*  
Pine: Ponderosa

*Populus angustifolia*  
Cottonwood: Narrowleaf

*Populus tremuloides*  
Aspen: Quaking

*Pseudotsuga menziesii*  
Douglas-fir

**Regionally Occurring Native Shrubs**

*Acer glabrum*  
Maple: Rocky Mountain

*Amelanchier canadensis*  
Serviceberry: Shadblow

*Arctostaphylos uva-ursi*  
Kinnikinnick

*Ceanothus fendleri*  
Buckbrush: Fendler's

*Ceanothus velutinus*  
Sticky-laurel

*Holodiscus dumosus*  
Mountain Spray

*Jamesia americana*  
Waxflower

*Juniperus communis*  
Juniper: Common

*Pachistima myrsinites*  
Mountain-lover

*Physocarpus monogynus*  
Ninebark

*Prunus pensylvanica*  
Cherry: Pin

*Prunus virginiana melanocarpa*  
Chokecherry

*Quercus gambelii*  
Oak: Gambel's

*Ribes coloradense*  
Currant: Colorado

*Ribes inerme*  
Gooseberry

*Ribes wolfii*  
Currant: Gooseberry

*Rosa woodsii*  
Rose: Woods

*Rubus deliciosus*  
Raspberry: Boulder

*Rubus idaeus ssp. melanolasius*  
Raspberry: Wild

*Rubus parviflorus*  
Thimbleberry

*Shepherdia canadensis*  
Buffaloberry: Canada

*Sorbus scopulina*  
Mountain Ash

*Symphoricarpos oreophilus*  
Snowberry

# Appendix B: Selected Plants for Colorado Springs

## Legend:

**Water Requirement:** The water need of a plant species.

**Expanded Range:** The water tolerance of a plant species.

The Average growing season precipitation is 13.2 inches at the Colorado Springs Municipal Airport. This number was used as the base unit for establishing minimum plant water requirements for the City of Colorado Springs.

Variations in actual precipitation, climate zone, microclimate, soil type and preparation, and mulch type and depth will influence a plant's need/requirement for supplemental water. The first two columns - "Water Requirement" and "Expanded Range" are a tool for the landscape designer to utilize in grouping plants by like water needs (hydrozoning).

The total water needs and tolerances of plants are given in the following general ranges:

**D - Dry:** The plant requires thirteen to twenty inches (13-20") of total precipitation per growing season. Such plants need limited supplemental water and can survive periods of drought once established.

**A - Adaptable:** The plant requires eighteen to twenty inches (18-20") of total precipitation per growing season. Such plants can tolerate a broad range of water environments and are therefore adaptable to a variety of microclimates.

**S - Steady:** The plant requires twenty-three to thirty-eight inches (23-38") of total precipitation per growing season. Such plants either need regular supplemental water or a microclimate that provides for higher water needs.

**W - Wet:** The plant requires more than thirty-six inches (>36") of total precipitation per growing season. Such plants must have frequent supplemental water or a microclimate that provides for very high water needs.

## Botanical Name/Common Name

Plants are categorized as:

- Deciduous trees
- Deciduous shrubs and vines
- Evergreen trees, shrubs, and vines
- Grasses
- Flowers (a recommended, non-comprehensive list)
- Ground covers

Plants that fit into two categories are noted in both. Within these categories, plants are listed alphabetically according to their scientific or botanical names and supplemented with their common names. A plant genus that offers many species and cultivars is noted as spp. and cvs.

## Native Plant Communities of Colorado Springs

1. Semiarid Shrublands
2. Pinon-Juniper Woodlands
3. Prairie
4. Lower Elevation Riparian
5. Foothill Shrublands
6. Ponderosa Pine Forest
7. Upper Elevation Riparian
8. Douglas-fir Forest

**N — Native plant:** A species that is indigenous within the Colorado Springs City limits and naturally occurring in one or more plant communities.

**B — "Borrowed" native plant:** A species that is indigenous to a regional native plant community, it does not occur naturally in that same community within the Colorado Springs City limits.

**H — 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.

**C — Compatible plant:** A species with genetic or ornamental properties and physiographic requirements that closely resemble those properties and requirements of a plant in a specific regional native plant community or of a plant that is historically adapted to that community.

## 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. Plant success will vary depending on growing conditions.

- Zone 3** -40 to -30 degrees F
- Zone 4** -30 to -20 degrees F
- Zone 5** -20 to -10 degrees F
- Zone 6** -10 to 0 degrees F

## Forestry Street Tree

S - Indicates trees that are approved by City Forestry for planting in public street rights-of-way.

**Exposure**

Indicates the range of a plant's shade tolerance.

**Soil Preference (Tolerance)**

Soil types are generalized. Plant soil preferences are based on research. Soil tolerances are noted where information is available. Saline soils have a pH less than 8.5 and contain exchangeable sodium less than 15. Alkaline soils have a pH greater than 8.5 and contain exchangeable sodium greater than 15.

**Height/Width, Growth Rate**

Mature size and growth rate will vary for each plant, depending on growing conditions, soil type and amendments, mulch use, sun and wind exposure, watering rate, etc. Height and width reflect the range of expected size at maturity in Colorado Springs.

Growth rate is shown as:

**Slow:** Grows two to six inches (2-6") or less per year.

**Moderate (mod):** Grows six to twelve inches (6-12") per year.

**Fast:** Grows twelve to twenty-four inches or more (12-24"+) per year.

**Habit/Form**

The description indicates the plant's predominant natural form under ideal conditions.

**Comments**

Additional information about the plant.

**Plant Schedule Key**

Numbers indicate the native plant communities within which the plant is classified as a "signature plant". Letters indicate the water requirement and expanded water range, if any, of the plant. The key for each plant utilized is to be noted in the plant schedule of the landscape plan in conformance with Appendix G, Plant Schedule Format.

| Water Requirement | Expanded Range | Botanical Name | Common Name | 1. Semiarid Shrublands | 2. Pfrion-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Forestry Street Tree | Exposure | Soil Preference/Tolerance | Height Width/Growth Rate | Habit/Form | Comments | Plant Schedule Key |
|-------------------|----------------|----------------|-------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|-------------------------------|----------|---------------------------|--------------------------|------------|----------|--------------------|
|-------------------|----------------|----------------|-------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|-------------------------------|----------|---------------------------|--------------------------|------------|----------|--------------------|

## DECIDUOUS SHRUBS AND VINES

|  |  |  |  |  |  |  |  |  |  |  |  |   |  |                       |                       |              |  |        |
|--|--|--|--|--|--|--|--|--|--|--|--|---|--|-----------------------|-----------------------|--------------|--|--------|
|  |  | <i>Acer ginnata</i> and cvs.<br>Maple: Amur, Ginnala             |  |  |  |  |  |  |  |  |  | 2 |  | Adaptable             | 15-25/15-20' slow     | irregular    | Hardy. Fall color. Best in moist well drained soil, poor in heavy clay. Tolerates pruning. | 457A   |
|  |  | <i>Acer glabrum</i><br>Maple: Rocky Mountain                     |  |  |  |  |  |  |  |  |  | 2 |  | Sandy-loam            | Varies                | irregular    | Native near streams in the mountains. Needs well drained soil and regular water.           | 456/8S |
|  |  | <i>Acer tataricum</i><br>Maple: Tatarian                         |  |  |  |  |  |  |  |  |  | 3 |  | Adaptable, Alkaline   | 15-20/15-20' slow-mod | round        | Red samaras in late summer. Good in planter boxes. Hardy. Resembles <i>A. ginnata</i> .    | 457A   |
|  |  | <i>Amelanchier alnifolia</i><br>Serviceberry: Saskatoon, Western |  |  |  |  |  |  |  |  |  | 4 |  | Adaptable             | 6-12/6-12' mod        | upright oval | Edible fruit persists into winter.   | 257DA  |
|  |  | <i>Amelanchier canadensis</i><br>Serviceberry: Shadblow          |  |  |  |  |  |  |  |  |  | 3 |  | Adaptable             | 15-25/5-20' slow      | round        | Suckering habit. Very hardy. Attracts wildlife. Edible fruit.                              | 4578S  |
|  |  | <i>Amelanchier stolonifera</i><br>Serviceberry: Running          |  |  |  |  |  |  |  |  |  | 4 |  | Adaptable             | 3-5/4-8' mod          | upright      | Stoloniferous growth. Edible fruit.  | 5S     |
|  |  | <i>Amelanchier utahensis</i><br>Serviceberry: Utah               |  |  |  |  |  |  |  |  |  | 4 |  | Adaptable             | 6-12/6-12' mod        | round        | Woolly gray-green leaves. Attractive flowers, fruit is edible.                             | 1257DA |
|  |  | <i>Amorpha canescens</i> and cvs.<br>Leadplant                   |  |  |  |  |  |  |  |  |  | 3 |  | Sandy, Adaptable      | Varies mod            | broad oval   | Foliage interesting gray-green.  | 235A   |
|  |  | <i>Amorpha fruticosa</i><br>Indigo Bush                          |  |  |  |  |  |  |  |  |  | 3 |  | Sandy-loam, Adaptable | 6-20/5-15' mod        | irregular    | Self sows. Prune in spring.  | 2345A  |
|  |  | <i>Aronia arbutifolia</i> and cvs.<br>Chokeberry: Brilliant Red  |  |  |  |  |  |  |  |  |  | 4 |  | Adaptable             | 6-8/4-6' slow-mod     | upright      | Somewhat adaptable to lower water zones.   | 47S    |
|  |  | <i>Aronia melanocarpa</i><br>Chokeberry: Black                   |  |  |  |  |  |  |  |  |  | 3 |  | Adaptable             | 3-5/3-5' slow-mod     | upright      | Suckers. Attractive flowers, fruit, fall color. Somewhat adaptable to lower water zones.   | 457A   |
|  |  | <i>Artemisia abrotanum</i><br>Sagebrush: Southernwood, Old Man   |  |  |  |  |  |  |  |  |  | 4 |  | Adaptable             | 3-5/2-3' mod          | upright      | Pleasant scent. Gray foliage.  | 1236D  |

## LEGEND

- = dry 13" - 20"  
 = adaptable 18" - 28"  
 = steady 23" - 38"  
 = wet > 36"
- = Native to Colorado Springs  
 = Borrowed from similar regional plant community  
 = Historically adapted introduced plant  
 = Compatible with plant community  
 = Limited use plants

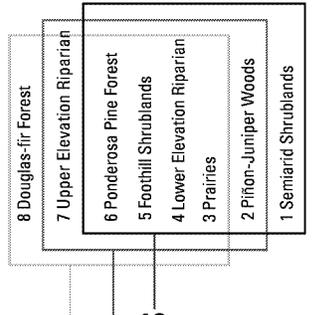
## Exposure

- = Sun  
 = Part-Sun  
 = Shade

## Plant Community

- = Native to Colorado Springs  
 = Borrowed from similar regional plant community  
 = Historically adapted introduced plant  
 = Compatible with plant community  
 = Limited use plants

## FOOTHILLS AND PLAINS



Water Requirement

Expanded Range

Botanical Name

Common Name

1. Semiarid Strublands

2. Pinn-Jumper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

Approved Forestry Street Tree

USDA Hardiness Zone

Exposure

Soil Preference / Tolerance

Height Width / Growth Rate

Habit / Form

Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name                        | Common Name                    | 1. Semiarid Strublands | 2. Pinn-Jumper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | USDA Hardiness Zone | Exposure | Soil Preference / Tolerance | Height Width / Growth Rate | Habit / Form      | Comments   | Plant Schedule Key |
|-------------------|----------------|---------------------------------------|--------------------------------|------------------------|----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|---------------------|----------|-----------------------------|----------------------------|-------------------|--|--------------------|
| D                 |                | <i>Artemisia filifolia</i>            | Sagebrush: Sand                | B                      | G                    | N           | N                           | N                      |                          |                             |                       |                               | 4                   | S        | Sandy-loam                  | 1-5/2-3' mod-slow          | broad oval        | Lacy silver foliage.   | 1235D              |
| D                 |                | <i>Atriplex confertifolia</i>         | Saltbush: Spiny                | N                      | G                    |             | B                           |                        |                          |                             |                       |                               | 4                   | S        | Adaptable, Saline, Alkaline | 2-4/2-4' slow              | broad oval        | Common native to desert.   | 1235D              |
| D                 |                | <i>Atriplex canescens</i>             | Saltbush: Fourwing             | N                      | N                    |             | N                           |                        |                          |                             |                       |                               | 4                   | S        | Adaptable, Saline, Alkaline | 3-6/2-4' mod-slow          | irregular         | Common native to desert.   | 1235D              |
| A                 |                | <i>Berberis koreana</i>               | Barberry: Korean               |                        |                      |             |                             |                        |                          |                             |                       |                               | 4                   | S PS     | Adaptable                   | 4-6/4-6' mod               | upright oval      | Purple leaf, thorny. Leaves out early in spring.                             | 45A                |
| A                 |                | <i>Berberis x mentorensis</i>         | Barberry: Mentor               |                        |                      |             |                             |                        |                          |                             |                       |                               | 4                   | S PS     | Adaptable                   | 5-7/5-7' mod               | broad oval        | Leaves out early in spring.  | 45A                |
| A                 |                | <i>Berberis thunbergii and cvs.</i>   | Barberry: Japanese             |                        |                      |             |                             |                        |                          |                             |                       |                               | 4                   | S PS     | Adaptable                   | 4-6/4-6' mod               | varies            | Leaves out early in spring. Some varieties red to purple leaves.             | 45A                |
| W                 |                | <i>Betula fontinalis</i>              | Birch: Native River            |                        |                      |             |                             |                        |                          | N                           |                       |                               | 2                   | S PS     | Clay Clay-Loam              | 1.5-3.5/ 1.5-2.5'          | irregular         | Attractive bark. Bright green leaves.  | 47W                |
| W                 |                | <i>Betula glandulosa</i>              | Birch: Bog                     |                        |                      |             |                             |                        |                          | N                           |                       |                               | 1                   | S PS     | Clay Clay-Loam              | 3-6/3-6'                   | broad oval        | Dark green leaves. Attractive stem color. Fall color.                        | 47W                |
| A                 |                | <i>Buddleia alternifolia and cvs.</i> | Butterfly Bush: Alternate-leaf |                        |                      |             |                             |                        |                          |                             |                       |                               | 5                   | S PS     | Sandy-Loam                  | 10-15/ 8-12' mod-fast      | vase              | Silver to blue gray finely textured foliage. Arching branches.               | 45A                |
| A                 |                | <i>Buddleia davidii and cvs.</i>      | Butterfly Bush                 |                        |                      |             |                             |                        |                          |                             |                       |                               | 5                   | S PS     | Adaptable                   | 5-10/4-8' mod-fast         | upright irregular | Dies to ground in winter. Cut back in spring.                                | 45A                |
| A                 |                | <i>Campsis radicans</i>               | Trumpet Vine                   |                        |                      |             |                             |                        |                          |                             |                       |                               | 5                   | S        | Adaptable                   | Vine 10x-40' fast          | spreading         | Best with support. Suckering. May die to ground. Flowers on old living wood. | 457A               |
| A                 |                | <i>Caragana arborescens</i>           | Peashrub: Siberian             |                        |                      |             |                             |                        |                          |                             |                       |                               | 2                   | S        | Adaptable, Alkaline         | 10-15/ 8-12' mod-fast      | upright oval      | Hardy. Small yellow flowers. Thorns. Attractive bark.                        | 23456A             |
| D                 |                | <i>Caragana pygmaea</i>               | Peashrub: Pygmy                |                        |                      |             |                             |                        |                          |                             |                       |                               | 3                   | S        | Adaptable, Alkaline         | 3-4/3-5'                   | vase              | Dwarf. Yellow flowers in spring.   | 23456D             |
| A                 |                | <i>Caryopteris x clandonensis</i>     | Spirea: Bluemist               |                        |                      |             |                             |                        |                          |                             |                       |                               | 4/5                 | S        | Adaptable                   | 3-4/2-3' fast              | broad oval        | Late summer blue flowers. Cut back winter kill in late winter/early spring   | 1235A              |
| D                 |                | <i>Ceanothus fendleri</i>             | Mountain Lilac, Buckbrush      |                        |                      |             |                             |                        |                          |                             |                       |                               | 5                   | S        | Sandy-loam                  | 2-3/2-3' mod-slow          | upright oval      | White flower clusters seem to cover whole plant when in bloom.               | 568D               |
| A                 |                | <i>Celastrus scandens</i>             | American Bittersweet           |                        |                      |             |                             |                        |                          |                             |                       |                               | 4                   | S PS     | Adaptable                   | Vine to > 10'              | vine              | Male and female flowers on different plants. Twining vine needs support.     | A                  |

# DECIDUOUS SHRUBS AND VINES

| Water Requirement | Expanded Range | Botanical Name<br>Common Name  | 1. Semiarid Shrublands | 2. Pinn-Jumper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Forestry Street Tree | Exposure              | Soil Preference / Tolerance | Height / Width / Growth Rate | Habit / Form   | Comments   | Plant Schedule Key |
|-------------------|----------------|--|------------------------|----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|-------------------------------|-----------------------|-----------------------------|------------------------------|--|--|--------------------|
| D                 |                | <i>Cercocarpus montanus</i><br>Mountain Mahogany; True                                       | G                      |                      |             |                             |                        |                          |                             |                       | 2                   |                               |                       | Adaptable                   | 5-10'/5-8'<br>slow           | upright  | Fairy.   | 1256D              |
| A                 |                | <i>Chaenomeles japonica</i> and cvs.<br>Quince; Japanese Flowering                           | .                      | .                    | .           | .                           | .                      | .                        | .                           | .                     | 4                   |                               |                       | Adaptable                   | 4-6'/4-8'<br>mod             | broad oval   | Scarlet flowers. Can be ratty if not maintained. Flowers on year old wood. Edible fruit. | A                  |
| S                 |                | <i>Chaenomeles speciosa</i> and cvs.<br>Quince; Common Flowering                             | .                      | .                    | .           | .                           | .                      | .                        | .                           | .                     | 4                   |                               |                       | Adaptable                   | 4-6'/4-8'                    | broad rounded  | Scarlet flowers. Can be ratty if not maintained. Flowers on year old wood. Edible fruit. | S                  |
| D                 |                | <i>Chamaebatiaria millefolium</i><br>Fernbush  | G                      | G                    |             |                             |                        |                          |                             |                       | 4                   |                               | Sandy-loam            | 3-5'/3-5'<br>slow           | broad rounded                | Fragrant grayish fern-like leaves. Semi-evergreen.                                     | 123D   |                    |
| D                 |                | <i>Chrysothamnus spp. and cvs.</i><br>Rabbitbrush  | G                      | N                    |             |                             |                        |                          |                             |                       | 2                   |                               | Adaptable             | Varies, mod                 | varies                       | Many varieties, some with blue-green foliage.  | 1235D  |                    |
| D                 |                | <i>Clematis ligusticifolia</i><br>Western Virgin's Bower                                     | B                      | N                    |             |                             |                        |                          |                             |                       | 3                   |                               | Sandy                 | Vine to > 10'               | vine                         | Feathery seed heads.   | 257D   |                    |
| A                 |                | <i>Clematis spp. and cvs.</i><br>Clematis  |                        |                      |             |                             |                        |                          |                             |                       | Varies              |                               | Sandy-loam            | Vine to > 10'               | vine                         | Keep roots cool. Twining vine needs support. Hardiness varies by species and cultivar. | 57A  |                    |
| A                 |                | <i>Cornus alba</i> and cvs.<br>Dogwood; Tartarian  |                        |                      |             |                             |                        |                          |                             |                       | 2                   |                               | Adaptable             | 6-10'/5-8'<br>mod-fast      | upright                      | Prefers moderate water. Fruit attracts robins.   | 457A   |                    |
| S                 |                | <i>Cornus stolonifera</i> and cvs. (syn. <i>C. sericea</i> )<br>Dogwood; Red Twig, Red-osier |                        |                      |             |                             |                        |                          |                             |                       | Varies              |                               | Adaptable             | Varies, mod-fast            | broad rounded                | Prefers moderate to high water.  | 457S   |                    |
| A                 |                | <i>Cotinus coggygia</i> and cvs.<br>Smoke Tree   | .                      | .                    | .           | .                           | .                      | .                        | .                           | .                     | 5                   |                               | Sandy-loam, Adaptable | 10-15'/10-15'<br>mod.       | irregular                    | Dies to ground in extreme winters.   | A  |                    |
| S                 |                | <i>Cotoneaster adpressus</i> var. <i>pracox</i><br>Cotoneaster; Creeping                     | .                      | .                    | .           | .                           | .                      | .                        | .                           | .                     | 4                   |                               | Adaptable             | 1-2'/4-6'<br>mod-fast       | spreading                    | Fruit, fall color.   | S  |                    |
| S                 |                | <i>Cotoneaster apiculatus</i> and cvs.<br>Cotoneaster; Cranberry                             |                        |                      |             |                             |                        |                          |                             |                       | 4                   |                               | Adaptable             | 18-24'/4-6'                 | weeping shrub                | Nice foliage and fruit.  | 456S   |                    |
| S                 |                | <i>Cotoneaster dammeri</i> and cvs.<br>Cotoneaster; Bearberry                                |                        |                      |             |                             |                        |                          |                             |                       | 5                   |                               | Adaptable             | 1-2'/4-6'<br>mod-fast       | weeping shrub                | Nearly evergreen groundcover.  | 4568S  |                    |
| A                 |                | <i>Cotoneaster divaricatus</i><br>Cotoneaster; Spreading                                     | G                      | G                    | G           | G                           | G                      | G                        | G                           | G                     | 4                   |                               | Adaptable             | 6-12'/6-12'<br>mod-fast     | spreading                    | Foliage excellent in summer and fall. Attractive red fruit.                            | 2345A  |                    |
| S                 |                | <i>Cotoneaster horizontalis</i> and cvs.<br>Cotoneaster; Rock                                | G                      | G                    | G           | G                           | G                      | G                        | G                           | G                     | 4                   |                               | Adaptable             | 2-3'/5-8'<br>mod-slow       | spreading                    | Damage in severe winters.  | 2345S  |                    |
| D                 |                | <i>Cotoneaster lucidus</i><br>Cotoneaster; Hedge   | G                      | G                    | G           | G                           | G                      | G                        | G                           | G                     | 4                   |                               | Adaptable             | 6-9'/6-9'                   | upright oval                 | Nice fall color. Use in hedges, background, foundation plantings.                      | 2345D  |                    |



Expanded Range  
 Water Requirement  
 Botanical Name  
 Common Name

**DECIDUOUS SHRUBS AND VINES**

| Water Requirement | Expanded Range | Botanical Name   | Common Name | 1. Semard Shrublands | 2. Piron-Jumper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | Exposure                   | Soil Preference / Tolerance | Height Width / Growth Rate | Habit / Form   | Comments | Plant Schedule Key |
|-------------------|----------------|--|-------------|----------------------|-----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|----------------------------|-----------------------------|----------------------------|--|----------|--------------------|
| A                 |                | <i>Ligustrum vulgare</i> and cvs.<br>Privet: Cheyenne, Lodense |             | •                    | •                     | •           | •                           | •                      | •                        | •                           | 5                     |                               | Adaptable                  | Varies                      | varies                     | Dark green leaves, creamy white flowers.   | A        |                    |
| A                 |                | <i>Lonicera x brownii</i> and cvs.<br>Honeysuckle              |             | •                    | •                     | •           | G                           | G                      | G                        | •                           | 5                     | S PS                          | Adaptable                  | Vine to >20'                | vine                       | Scarlet flowers. Susceptible to aphid damage.  | 56A      |                    |
| S                 |                | <i>Lonicera involucrata</i><br>Honeysuckle: Twinberry          |             |                      |                       |             | B                           | B                      | N                        | •                           | 4                     | S PS                          | Adaptable                  | 3-6/3-6' mod.               | irregular                  | Prefers high water.  | 67S      |                    |
| A                 |                | <i>Lonicera japonica</i> and cvs.<br>Honeysuckle: Japanese     |             |                      |                       | •           | C                           | C                      | C                        | •                           | 5                     | S PS                          | Adaptable                  | Vine to >20'                | vine                       | Serious weed in the eastern US.  | 567A     |                    |
| A                 |                | <i>Lonicera korolkowii</i><br>Honeysuckle: Blueleaf            |             |                      |                       | •           | C                           | C                      | C                        | •                           | 5                     | S                             | Clay, Clay-loam, Adaptable | 8-12/6-10' mod              | irregular                  | Disease and pest resistant. Slow to establish. Does not thrive in sandy soils.                       | 56A      |                    |
| A                 |                | <i>Lonicera tatarica</i> and cvs.<br>Honeysuckle: Tatarian     |             |                      |                       | •           | H                           | H                      | H                        | •                           | 5                     | S PS                          | Adaptable                  | 10-15/10-15' fast           | irregular                  | Select, pest resistant varieties. Adaptable to drought.  | 567A     |                    |
| D                 | A              | <i>Parthenocissus quinquefolia</i><br>Virginia creeper         |             |                      |                       | •           | H                           | H                      | H                        | •                           | 3                     | S PS                          | Adaptable                  | Vine to >50' fast           | vine                       | Powdery mildew in deep shade, with excessive overhead water. Holdfasts cling to buildings and walls. | 457DA    |                    |
| S                 |                | <i>Parthenocissus tricuspidata</i><br>Boston Ivy               |             | •                    | •                     | •           | •                           | •                      | •                        | •                           | 4                     | SH                            | Sandy-loam, Clay-loam      | Vine                        | vine                       | Dark green leaves. Clings to structures with hold-fast.  | SA       |                    |
| D                 | A              | <i>Philadelphus microphyllus</i><br>Mockorange: Littleleaf     |             | •                    | •                     | •           | G                           | G                      | G                        | •                           | 4                     | S                             | Adaptable                  | 2-3/2-3y                    | upright                    | Scented flowers. Low maintenance.  | 12567DA  |                    |
| D                 | A              | <i>Philadelphus x lemoinei</i> and cvs.<br>Mockorange          |             | •                    | •                     | •           | •                           | •                      | •                        | •                           | 4                     | S                             | Sandy-loam                 | 3-6/3-6' mod-fast           | varies                     | Many cultivars. Scented flowers. Low maintenance.  | DA       |                    |
| A                 |                | <i>Physocarpus monogynus</i><br>Ninebark: Native               |             | •                    | •                     | •           | N                           | N                      | N                        | •                           | 4                     | S PS                          | Adaptable                  | 3-4/3-4' mod-fast           | upright                    | Fall color. Attractive shedding bark.  | 568A     |                    |
| S                 | A              | <i>Physocarpus opulifolius</i> and cvs.<br>Ninebark: Common    |             |                      |                       | •           | B                           | B                      | B                        | •                           | 5                     | S PS                          | Adaptable, Alkaline        | Varies, mod-fast            | upright                    | Dwarf varieties available. Less water in protected locations.  | 568SA    |                    |
| D                 |                | <i>Polygonum aubertii</i><br>Silver Lace Vine                  |             |                      |                       | •           | C                           | C                      | C                        | •                           | 4                     | S PS SH                       | Clay-loam, Sandy-loam      | vine to >50' fast           | vine                       | Vigorous. Twining vine needs support. Good screen.   | 356D     |                    |
| S                 |                | <i>Potentilla fruticosa</i> and cvs.<br>Potentilla             |             |                      |                       | •           | C                           | B                      | N                        | •                           | 2                     | S                             | Adaptable                  | Varies                      | varies                     | Many varieties. Yellow and white flowers.  | 4567S    |                    |
| D                 | A              | <i>Prunus americana</i><br>Plum: Native                        |             |                      |                       | •           | C                           | N                      | N                        | •                           | 4                     | S PS                          | Adaptable                  | 10-20/8-12' fast            | irregular                  | Tolerates drought. Suckering habit. With suckering width may be double height.                       | 234567DA |                    |
| A                 |                | <i>Prunus besseyi</i><br>Cherry: Bessey, Sand                  |             | •                    | •                     | •           | B                           | B                      | B                        | •                           | 3                     | S PS                          | Sandy-loam                 | 4-6/4-6' mod-fast           | broad oval                 | Edible fruit. Prefers sandy soil.  | 1345A    |                    |

Expanded Range

Water Requirement

Botanical Name

Common Name

1. Sentinal Shrublands

2. Pnon-Juniper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

Approved Forest/ Street Tree

USDA Hardiness Zone

Exposure

Soil Preference / Tolerance

Height / Width / Growth Rate

Habit / Form

Comments

Plant Schedule Key

**DECIDUOUS SHRUBS AND VINES**

| Water Requirement | Expanded Range | Botanical Name   | Common Name | 1. Sentinal Shrublands | 2. Pnon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forest/ Street Tree | Exposure | Soil Preference / Tolerance | Height / Width / Growth Rate | Habit / Form      | Comments   | Plant Schedule Key |
|-------------------|----------------|--|-------------|------------------------|-----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|------------------------------|----------|-----------------------------|------------------------------|-------------------|--|--------------------|
|                   |                | <i>Prunus x cistena</i> and cvs.<br>Cherry: Purpleleaf Sandcherry      |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 4-6'/6-8' mod-fast           | varies            | Suckering habit. Hardy Pink flowers. dark purple fruit. Red-purple leaves in summer.                 | 1245678AD          |
|                   |                | <i>Prunus pennsylvanica</i><br>Cherry: Pin, Wild Red                   |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 15-20'/10-15' fast           | irregular         | Flowers, fruit and fall color. Attracts wildlife.  | 1345678DA          |
|                   |                | <i>Prunus tomentosa</i><br>Cherry: Nanking                             |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 6-10'/10-15' mod-fast        | upright irregular | Hardy. Early flowers. edible fruit. Can be trained as a tree.  | 457A               |
|                   |                | <i>Prunus virginiana melanocarpa</i> and cvs.<br>Chokecherry: Native   |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Coarse, Adaptable           | 10-20'/12' fast              | irregular         | Suckering habit. Less water in protected locations. Green leaves.                                    | 1245678SA          |
|                   |                | <i>Ptelea trifoliata</i><br>Hoptree: Water Ash                         |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Sandy-loam                  | 10-15'/10-20' slow           | irregular         | Tendency to sucker. Needs protection.  | 5A                 |
|                   |                | <i>Purshia tridentata</i><br>Antelope Bitterbrush                      |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Sandy-loam                  | 7-9'/7-9' mod                | upright oval      | Yellow flowers. Attracts deer.   | 12356D             |
|                   |                | <i>Quercus gambelii</i><br>Oak: Gambel, Scrub                          |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Sandy-loam                  | 15-30'/15-20' slow           | irregular         | Difficult to transplant. Creeping root habit. Extremely hardy. Poor availability. Do not over-water. | 125678DA           |
|                   |                | <i>Rhamnus cathartica</i><br>Buckthorn: Common                         |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 18-25'/15-20' mod-fast       | broad oval        | Background, screen. Good in difficult growing conditions. Attractive fruit, draws wildlife.          | 256D               |
|                   |                | <i>Rhamnus frangula</i> and cvs.<br>Buckthorn: Tallowhedge             |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Sandy-loam                  | 10-15'/8-12' mod-fast        | upright           | Can be trained as a tree. Attractive fruit, draws birds. Use cultivars.                              | 45D                |
|                   |                | <i>Rhamnus smithii</i><br>Buckthorn: Smith                             |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Sandy-loam                  | 6-12'/6-8' mod-fast          | round             | Attractive fruit, draws birds.   | 56D                |
|                   |                | <i>Rhus aromatica</i> and cvs.<br>Sumac: Fragrant                      |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Coarse, Sandy-loam          | Varies, mod                  | varies            | Red fruit, fall color. Suckers.  | 23456DA            |
|                   |                | <i>Rhus glabra cismontana</i> and cvs.<br>Sumac: Dwarf, Rocky Mountain |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 3-6'/3-15' mod               | broad oval        | Glossy dark green leaves turn red in fall.   | 567DA              |
|                   |                | <i>Rhus glabra</i> and cvs.<br>Sumac: Smooth                           |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 8-15'/8-10' mod-fast         | varies            | Colonizes, suckers and develops in all directions from the mother plant. Red fall color.             | 567AD              |
|                   |                | <i>Rhus trilobata</i><br>Sumac: Threelobed, Skunkbush                  |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 3-6'/3-6' mod                | broad oval        | Rounded, spreading. Unpleasantly scented when brushed.   | 23456DA            |
|                   |                | <i>Rhus typhina</i> and cvs.<br>Sumac: Staghorn                        |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | Varies, mod-fast             | varies            | Suckering habit. Red fall color. Does well in rocky, shallow soils.                                  | 567AD              |
|                   |                | <i>Ribes alpinum</i><br>Currant: Alpine                                |             |                        |                       |             |                             |                        |                          |                             |                       |                              |          | Adaptable                   | 3-6'/3-6' mod                | rounded           | Bright glossy green leaves in summer. Good in semi-shade conditions.                                 | 5678A              |

Water Requirement

Expanded Range

Botanical Name

Common Name

1. Semiarid Strublands

2. Pinn-Juniper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Strublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

Approved Forestry Street Tree

Exposure

Soil Preference / Tolerance

Height Width / Growth Rate

Habit / Form

Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name                    | Common Name                        | 1. Semiarid Strublands | 2. Pinn-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Strublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | Exposure | Soil Preference / Tolerance | Height Width / Growth Rate | Habit / Form      | Comments  | Plant Schedule Key |
|-------------------|----------------|-----------------------------------|------------------------------------|------------------------|-----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|----------|-----------------------------|----------------------------|-------------------|---|--------------------|
|                   |                | <i>Ribes aureum</i>               | Currant: Golden                    |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 3-6/3-6' mod-fast          | broad rounded     | Yellowish leaves. Does not adapt well to full shade situations.   | 24567DA            |
|                   |                | <i>Ribes cereum</i>               | Currant: Wax                       |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 3-6/3-6' slow-mod          | irregular         | Red fruit attracts wildlife.  | 2456DA             |
|                   |                | <i>Ribes inerme</i>               | Gooseberry                         |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 3-3/3-4' mod               | broad oval        | Edible fruit.   | 245678DA           |
|                   |                | <i>Robinia neomexicana</i>        | Locust: New Mexico                 |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 6-20/10-20' fast           | irregular         | Pink flowers. Thorns. Aggressive spreader. Can escape cultivation and become invasive.                  | 2345678DA          |
|                   |                | <i>Rosa foetida 'Bicolor'</i>     | Rose: Austrian Copper              |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 6-10/6-8' mod              | irregular         | Bright red and yellow flowers.  | 45678AD            |
|                   |                | <i>Rosa multiflora</i>            | Rose: Multiflora                   |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 6-10/6-10' mod.            | arching shrub     | Attractive fruit.   | 145678A            |
|                   |                | <i>Rosa rugosa</i>                | Rose: Rugosa                       |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 4-6/4-6' mod               | upright           | Many cultivars. Good on banks, cuts/fills. Attractive fruit and flowers. Susceptible to powdery mildew. | 45678A             |
|                   |                | <i>Rosa spp. and cvs.</i>         | Rose: Shrub                        |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 3-6/3-6' mod               | varies            | Shrub roses have longer bloom, are most disease resistant.  | 45678SA            |
|                   |                | <i>Rosa woodsii</i>               | Rose: Woods                        |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 3-6/3-6' mod               | upright irregular | Hardy native to many plant communities in Colorado.   | 1245678DA          |
|                   |                | <i>Rubus deliciosus</i>           | Raspberry: Boulder, Rocky Mountain |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Sandy-loam                  | 3-6/3-6' mod-slow          | upright irregular | White flowers, red fruit.   | 145678AD           |
|                   |                | <i>Rubus idaeus spp. and cvs.</i> | Raspberry: Native                  |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Loam, Sandy-loam, Clay      | 4-6/3-6' mod-fast          | upright           | Edible fruit attracts wildlife. Needs deep, organically rich soil to thrive.                            | 145678A            |
|                   |                | <i>Rubus parviflorus</i>          | Thimbleberry                       |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Adaptable                   | 2-3/2-3' mod               | upright irregular | Forms colonies. Attractive flowers, non-edible fruit.   | 4578S              |
|                   |                | <i>Salix amygdalioides</i>        | Willow: Peachleaf, Almond Leaved   |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Clay-loam                   | 30-40/25-30' fast          | upright irregular | High water needs. Suckering habit.  | 47W                |
|                   |                | <i>Salix discolor</i>             | Willow: Pussy                      |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Clay-loam                   | 12-20/8-12' fast           | upright oval      | High water needs. Catkins appear before foliage in spring.  | 47W                |
|                   |                | <i>Salix exigua</i>               | Willow: Coyote                     |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Clay-loam                   | 4-12/4-8' fast             | arching           | High water needs. Catkins appear before foliage in spring.  | 47W                |
|                   |                | <i>Salix spp. and cvs.</i>        | Willow                             |                        |                       |             |                             |                        |                          |                             |                       |                               |          | Sandy-loam, Clay-loam       | Varies                     | varies            | High water needs.   | 47W                |

DECIDUOUS SHRUBS AND VINES

Expanded Range

Water Requirement

Botanical Name

Common Name

1. Semiarid Shrublands

2. Pion-Lupine Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

Approved Forestry Street Tree

Soil Preference / Tolerance

Height / Width / Growth Rate

Habit / Form

Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name  | Common Name | 1. Semiarid Shrublands | 2. Pion-Lupine Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | Soil Preference / Tolerance     | Height / Width / Growth Rate | Habit / Form      | Comments   | Plant Schedule Key |
|-------------------|----------------|---|-------------|------------------------|----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|---------------------------------|------------------------------|-------------------|--|--------------------|
| S                 | A              | <i>Sambucus caerulea</i><br>Elderberry: Blue  |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | 6-12/6-8'<br>fast            | broad rounded     | Hardy. Edible fruit. Best in mass plantings. Attractive fruit. Native in moist stream margins in Colorado. | 47SA               |
| S                 |                | <i>Sambucus canadensis</i> and cvs.<br>Elderberry: Northern, Golden                       |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | 6-15/6-8'<br>fast            | broad rounded     | Native in northern U.S. to areas with damp, rich soil.   | 47S                |
| S                 |                | <i>Sambucus nigra</i> and cvs.<br>Elderberry: European                                    |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Loam, sandy-loam, clay-loam     | 15-20/<br>15-20'<br>mod-fast | broad rounded     | May be trained as a tree. Variegated, yellow-leaf, purple-leaf, cut-leaf varieties available.              | 47S                |
| S                 |                | <i>Sambucus pubens</i> and cvs.<br>Elderberry: Native Red-berried                         |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Loam, Adaptable, Alkaline       | 4-12/<br>2-8'<br>mod-fast    | broad rounded     | Large attractive fruit. Short lived.   | 47S                |
| D                 |                | <i>Seriphidium canum</i> (syn: <i>Artemisia cana</i> )<br>Sagebrush: Silver               |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Coarse, Adaptable               | 1-6/2-3'                     | upright irregular | Long, slender, silver gray leaves.   | 12356D             |
| D                 |                | <i>Seriphidium tridentatum</i> (syn: <i>Artemisia tridentata</i> )<br>Sagebrush: Big Sage |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Coarse, Adaptable               | 3-12/3-8'<br>mod-slow        | irregular         | Blue-gray wedge shaped leaves. Shredding bark. Needs deep well drained soil.                               | 12356D             |
| S                 |                | <i>Shepherdia argentea</i><br>Buffaloberry: Silver  |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Sandy-loam, Adaptable           | 10-15/<br>8-10'<br>mod-slow  | round             | Adapted to dry and rocky soils. Need male and female for fruit. Thorns. Edible fruit attracts birds.       | 457S               |
| D                 |                | <i>Shepherdia canadensis</i><br>Buffaloberry: Roundleaf, Canada                           |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Sandy-loam, Adaptable           | 6-8/6-8'<br>mod-slow         | broad oval        | Tolerates poor soil, little maintenance and drought conditions.  | 12568D             |
| S                 |                | <i>Sorbaria sorbifolia</i><br>Spirea: Ural False  |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Sandy-loam, alkaline, adaptable | 4-6/6-8'                     | arching           | Forms colonies. Attractive flowers.  | S                  |
| S                 |                | <i>Spiraea x bumalda</i> and cvs.<br>Spirea: Bumald                                       |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | Varies                       | varies            | Suckers from roots. Many cultivars.  | SA                 |
| S                 |                | <i>Spiraea japonica</i> and cvs.<br>Spirea: Japanese                                      |             |                        |                      |             |                             |                        |                          |                             |                       |                               | sandy-loam, clay-loam           | 12-18/<br>2-3' mod           | varies            | Many cultivars.  | SA                 |
| S                 |                | <i>Spiraea nipponica</i> 'Snowmound'<br>Spirea: Nippon                                    |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | 3-5/3-5'<br>mod              | upright           | Early spring flowers.  | SA                 |
| S                 |                | <i>Spiraea trilobata</i> and cvs.<br>Spirea: Threelobe                                    |             |                        |                      |             |                             |                        |                          |                             |                       |                               | sandy-loam, clay-loam           | 2-4/2-4'<br>mod.             | varies            | Profuse white flowers in clusters, late spring to early summer.  | SA                 |
| S                 |                | <i>Spiraea x vanhouttei</i><br>Spirea: Vanhouttei, Bridal-Wreath                          |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | 5-6/5-6'<br>mod              | arching           | Showy spring flowers. Hardy, adaptable.  | SA                 |
| S                 |                | <i>Symphoricarpos albus</i><br>Snowberry: Common, White                                   |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | 3-6/3-6'<br>mod-fast         | irregular         | Nice fruit. Good in shady situations.  | 457SA              |
| D                 |                | <i>Symphoricarpos x chenaultii</i> and cvs.<br>Coralberry: Chenault                       |             |                        |                      |             |                             |                        |                          |                             |                       |                               | Adaptable                       | 2-5/7-8'<br>mod-fast         | spreading         | Ground cover uses.   | 457DA              |

Expanded Range

Water Requirement

Botanical Name

Common Name

1. Sentinal Shrubs

2. Iron-Jumper Woods

3. Pines

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

Approved Foresty Street Tree

USDA Hardiness Zone

Exposure

Soil Preference / Tolerance

Height / Width / Growth Rate

Habit / Form

Comments

Plant Schedule Key

**DECIDUOUS SHRUBS AND VINES**

| Water Requirement | Expanded Range | Botanical Name                           | Common Name                 | 1. Sentinal Shrubs | 2. Iron-Jumper Woods | 3. Pines | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Foresty Street Tree | Exposure | Soil Preference / Tolerance | Height / Width / Growth Rate | Habit / Form  | Comments  | Plant Schedule Key |
|-------------------|----------------|--|-----------------------------|--------------------|----------------------|----------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|------------------------------|----------|-----------------------------|------------------------------|---------------|---|--------------------|
|                   |                | <i>Symphoricarpos orbiculatus</i>        | Coralberry: Indiancurrennt  |                    |                      |          |                             |                        |                          |                             |                       | 2                   |                              |          | Adaptable                   | 3-6'/3-6' mod-fast           | irregular     | Loose shape. Fruit persists into winter.  | 457SA              |
|                   |                | <i>Symphoricarpos oreophilus</i>         | Snowberry: Mountain         |                    |                      |          |                             |                        |                          |                             |                       | 2                   |                              |          | Adaptable                   | 4-5'/4-5'                    | irregular     | Pink flowers, white fruit. Less water in protected locations.                         | 457/85A            |
|                   |                | <i>Syringa x chinensis</i>               | Lilac: Chinese              |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Clay, Clay-loam             | 8-15'/8-15'                  | upright oval  | Needs regular pruning. Best in clay soils.  | 478A               |
|                   |                | <i>Syringa x hyacinthiflora and cvs.</i> | Lilac: Hybrid               |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Sandy-loam, Clay-loam       | 8-12'/8-12'                  | upright oval  | Late spring bloom.  | 568A               |
|                   |                | <i>Syringa meyeri and cvs.</i>           | Lilac: Dwarf Korean         |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Adaptable                   | 3-5'/3-5' mod                | broad rounded | Early violet-purple flowers. Good with evergreen background.                          | 568A               |
|                   |                | <i>Syringa oblata and cvs.</i>           | Lilac: Early, Cheyenne      |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Sandy-loam, Clay-loam       | 8-12'/8-12' mod.             | broad rounded | Lavender-blue flowers. Very fragrant flowers.   | 568A               |
|                   |                | <i>Syringa patula and cvs.</i>           | Lilac: Manchurian           |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Adaptable                   | 4-6'/4-6' mod                | varies        | Fall color. Flowers nice.   | 568A               |
|                   |                | <i>Syringa x persica</i>                 | Lilac: Persian              |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Adaptable                   | 4-8'/5-10' mod               | upright       | Due to early bloom, there is a risk of frost damage. Good small lilac.                | 568AD              |
|                   |                | <i>Syringa x prestoniae and cvs.</i>     | Lilac: Canadian             |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Sandy-loam, Clay-loam       | 8-12'/4-8'                   | varies        | Late spring bloom.  | 568DA              |
|                   |                | <i>Syringa vulgaris and cvs.</i>         | Lilac: Common, French       |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Adaptable                   | 10-20'/6-12' mod             | varies        | Thousands of cultivars. Due to early bloom, frost damage is common.                   | 568DA              |
|                   |                | <i>Viburnum x burkwoodii</i>             | Viburnum: Burkwood          |                    |                      |          |                             |                        |                          |                             |                       | 4                   |                              |          | Sandy-loam, Clay-loam       | 10-12'/10-12' mod            | round         | Dark green leaves. bronze fall color.   | 47A                |
|                   |                | <i>Viburnum x carlcephalum</i>           | Viburnum: Fragrant Snowball |                    |                      |          |                             |                        |                          |                             |                       | 5                   |                              |          | Sandy-loam, Clay-loam       | 4-6'/4-6' mod                | round         | Dark green leaves, fragrant white flowers, attractive fruit. Fall color purplish-red. | 47D                |
|                   |                | <i>Viburnum carlesii and cvs.</i>        | Viburnum: Koreanspice       |                    |                      |          |                             |                        |                          |                             |                       | 4                   |                              |          | Sandy-loam, Clay-loam       | 4-5'/4-6'                    | broad rounded | White flowers emit a strong, spicy scent. Gray-green leaves.                          | A                  |
|                   |                | <i>Viburnum dentatum</i>                 | Viburnum: Arrowwood         |                    |                      |          |                             |                        |                          |                             |                       | 3                   |                              |          | Adaptable                   | 4-6'/5-8' mod                | broad rounded | Flowers, fruit, fall color. Attracts wildlife.  | A                  |
|                   |                | <i>Viburnum x juddii</i>                 | Viburnum: Judd              |                    |                      |          |                             |                        |                          |                             |                       | 5                   |                              |          | Sandy-loam, Clay-loam       | 4-6'/4-6' mod                | round         | Gray-green leaves, white flowers.   | 47A                |
|                   |                | <i>Viburnum lantana and cvs.</i>         | Viburnum: Wayfaringtree     |                    |                      |          |                             |                        |                          |                             |                       | 4                   |                              |          | Adaptable                   | Varies, mod                  | broad rounded | Flowers, fruit, fall color, striking gray bark.                                       | 456A               |





Water Requirement

Expanded Range

Botanical Name  
Common Name

1. Semiarid Shrublands

2. Pinyon-Juniper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

USDA Hardiness Zone

Approved Forestry Street Tree

Exposure

Soil Preference / Tolerance

Height / Width - Growth Rate

Habit / Form

Comments

Plant Schedule Key

**DECIDUOUS TREES**

| Water Requirement   | Expanded Range | Botanical Name<br>Common Name                                 | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies   | 4. Lower Elevation Riparian   | 5. Foothill Shrublands   | 6. Ponderosa Pine Forest  | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Forestry Street Tree   | Exposure              | Soil Preference / Tolerance | Height / Width - Growth Rate | Habit / Form  | Comments | Plant Schedule Key |
|---|----------------|---|------------------------|-------------------------|---|---|--|---|-----------------------------|-----------------------|---------------------|---|-----------------------|-----------------------------|------------------------------|---|----------|--------------------|
|    |                | <i>Alnus tenuifolia</i><br>Alder: Thin Leaf                   |                        |                         |   |   |  |   |                             |                       | 3                   |    | Adaptable             | 15-30/15-20'                | Upright Oval                 | Prefers moist, well-drained soil.   | 7S       |                    |
|    |                | <i>Amelanchier canadensis</i><br>Serviceberry: Shadbowl       |                        |                         |  |    |  |      |                             |                       | 3                   |    | Adaptable             | 15-25/15-20' - slow         | Round                        | Suckering habit. Very handy. Attracts wildlife. Attractive fruit.               | 4578S    |                    |
|    |                | <i>Amelanchier laevis</i><br>Serviceberry: Allegheny          |                        |                         |  |    |  |      |                             |                       | 4                   |    | Sandy-loam            | 20-30/15-20' - mod          | Upright                      | Root suckering habit. Attracts wildlife.  | 478S     |                    |
|    |                | <i>Amelanchier grandiflora</i><br>Serviceberry: Apple         |                        |                         |  |    |  |      |                             |                       | 4                   |    | Sandy-loam            | 15-25/15-20' - slow         | Round                        | Hardiness problems, protect. Prefers moist, well drained, acid soil.            | 4578S    |                    |
|    |                | <i>Betula occidentalis</i><br>Birch: Western, Water           |                        |                         |  |    |  |      |                             |                       | 4                   |    | Wet soils, Sandy-loam | 20-30/15-20' - mod          | Irregular                    | High water needs. Birch borer a problem.  | 457S     |                    |
|    |                | <i>Catalpa speciosa</i><br>Catalpa: Western                   |                        |                         |   |   |  |   |                             |                       | 4                   |    | Clay-loam, Sandy-loam | 40-60/20-40' - slow         | Broad Oval                   | Protected location. Fruit and leaf litter. Leaves out late. Hardiness problems. | S        |                    |
|    |                | <i>Celtis occidentalis</i><br>Hackberry: Common               |                        |                         |  |   |  |   |                             |                       | 4                   |    | Adaptable, Alkaline   | 50-60/40-50' - slow-mod     | Broad Oval                   | Messy seed litter. Hackberry nipple gall, psyllid food for migrating birds.     | 3457DA   |                    |
|    |                | <i>Cercis canadensis</i><br>Redbud: Eastern                   |                        |                         |   |   |  |   |                             |                       | 5                   |    | Adaptable             | 20-30/20-30' - slow-mod     | Upright                      | Very salt sensitive. Protected location only.                                   | S        |                    |
|    |                | <i>Cornus racemosa</i><br>Dogwood: Gray                       |                        |                         |   |   |  |   |                             |                       | 4                   |    | Adaptable             | 10-15/10-15' - slow - mod   | Upright                      | Protected location, hardiness problems. Profuse suckering.                      | S        |                    |
|  |                | <i>Crataegus ambigua</i><br>Hawthorn: Russian                 |                        |                         |   |  |  |   |                             |                       | 4                   |  | Adaptable             | 20/20' - slow               | Irregular                    | Thorns. Attractive flowers and fruit.   | 235AD    |                    |
|  |                | <i>Crataegus crus-galli</i> and cvs.<br>Hawthorn: Cockspar    |                        |                         |   |  |  |   |                             |                       | 4                   |  | Adaptable, Alkaline   | 20-30/20-35' - slow         | Broad Rounded                | Thorns. Flowers and fruit. Thornless varieties only along streets.              | 235AD    |                    |
|  |                | <i>Crataegus mollis</i><br>Hawthorn: Downey                   |                        |                         |   |  |  |   |                             |                       | 3                   |  | Adaptable             | 20-30/15-20' - slow         | Broad Rounded                | Thorns. Susceptible to rust.  | 45AS     |                    |
|  |                | <i>Crataegus phaenopyrum</i> and cvs.<br>Hawthorn: Washington |                        |                         |   |  |  |   |                             |                       | 5                   |  | Adaptable             | 20-30/20-30' - slow         | Broad Rounded                | Small thorns. Good fall color. White flowers. Fruit attracts wildlife.          | 45AS     |                    |
|  |                | <i>Elaeagnus angustifolia</i><br>Olive: Russian               |                        |                         |   |   |  |  |                             |                       | 4                   |  | Adaptable, Saline     | 10-20/20-30' - fast         | Broad Oval                   | Self sows, spread by wildlife, can become a problem.                            | 47DA     |                    |
|  |                | <i>Fraxinus americana</i> and cvs.<br>Ash: White              |                        |                         |   |   |  |   |                             |                       | 3                   |  | Sandy-loam Adaptable  | 50-75/20-30' - mod          | Broad Oval                   | Sunscald, ash sawfly and some canker problems. Hardiness problems.              | 4S       |                    |
|  |                | <i>Fraxinus pennsylvanica</i> and cvs.<br>Ash: Green          |                        |                         |   |   |  |  |                             |                       | 3                   |  | Adaptable, Alkaline   | 50-60/30-40' - mod-fast     | Varies                       | Overplanted in Colorado Springs. Seedless varieties.                            | 2457AD   |                    |

**DECIDUOUS TREES**

| Water Requirement | Expanded Range | Botanical Name<br>Common Name                               | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | Exposure | Soil Preference / Tolerance      | Height / Width - Growth Rate     | Habit / Form    | Comments  | Part-Schedule Key |
|-------------------|----------------|---|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|----------|----------------------------------|----------------------------------|-----------------|---|-------------------|
| S                 |                | <i>Fraxinus quadrangulata</i><br>Ash: Blue                  |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Loams-<br>Limestone              | 30-50/20-<br>30' - mod -<br>fast | Irregular       | Native to eastern U.S. and Canada.<br>Problems with ash sawfly.   | 4S                |
| S                 |                | <i>Ginkgo biloba</i><br>Ginkgo                              |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Sandy-loam,<br>Adaptable         | 30-50/15-<br>30' - slow          | Varies          | Protected location. Plant male tree only.<br>Female seed has foul odor.   | S                 |
| S                 | A              | <i>Gleditsia triacanthos</i> and cvs.<br>Honeylocust        |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Clay-loam,<br>Adaptable          | 30-50/30-<br>50' - mod           | Varies          | Occasional uplift of sidewalk, canker<br>and insect problems. Shallow roots.<br>Thornless and seedless varieties available. | 4SA               |
| A                 | S              | <i>Gymnocladus dioica</i><br>Kentucky Coffee Tree           |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Sandy-<br>loam,<br>Alkaline      | 50-60/20-<br>40' - slow          | Broad Oval      | Leads out late. Extremely coarse texture.<br>Best in organically rich sandy-loam soils.                                     | 34AS              |
| S                 |                | <i>Juglans nigra</i><br>Walnut: Black                       |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Sandy-loam                       | 50-75/50-<br>75' - slow-<br>mod  | Broad Oval      | Difficult to transplant. Honeydew from<br>aphids. Needs protection and well drained<br>soil. Attracts wildlife.             | 4S                |
| S                 |                | <i>Koeleruteria paniculata</i><br>Golden Rain Tree          |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Adaptable,<br>Alkaline           | 30-40/30-<br>40' - mod           | Broad Oval      | Protect, hard to establish. Decorative<br>seed pods, seeds messy. Re-seeds prolifically.                                    | S                 |
| S                 |                | <i>Malus spp.</i> and cvs.<br>Crabapple                     |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Adaptable                        | Varies -<br>mod                  | Varies          | Fruit litter, fireblight.<br>Use disease resistant varieties only.  | 467S              |
| S                 |                | <i>Phellodendron amurense</i><br>Corktree: Amur             |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Adaptable                        | 20-30/15-<br>20' - slow          | Broad Oval      | Fruit litter. Problems with hardness.   | S                 |
| A                 |                | <i>Populus x acuminata</i><br>Cottonwood: Lanceleaf         |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Sand,<br>Sandy-loam<br>Adaptable | 40-60/20-<br>40'                 | Upright<br>Oval | Yellow fall color.  | 478A              |
| A                 |                | <i>Populus angustifolia</i><br>Cottonwood: Narrowleaf       |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Loam,<br>Adaptable               | 60-80/50-<br>60'                 | Upright<br>Oval | Drought tolerant once established.  | 4578A             |
| A                 | D              | <i>Populus sargentii</i><br>Cottonwood: Plains              |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Loam,<br>Clay-loam,<br>Adaptable | 30-80/20-<br>80' - fast          | Upright<br>Oval | Drought tolerant once established.  | 47AD              |
| S                 |                | <i>Populus spp.</i> and cvs.<br>Cottonwood                  |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Adaptable                        | Varies - fast                    | Varies          | Cotton, sheds twigs, sidewalk/sewer<br>problems. Native in stream beds.<br>Suckers. Use cottonless varieties.               | 47BS              |
| D                 | A              | <i>Prunus americana</i><br>Plum: Native                     |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Adaptable                        | 10-20/8-<br>12' - fast           | Irregular       | Tolerates drought. Suckering habit,<br>needs regular pruning to maintain single trunk.                                      | 234567DA          |
| S                 |                | <i>Prunus armeniaca</i> and cvs.<br>Apricot                 |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Clay-loam,<br>Alkaline           | 20-25/20-<br>25' - mod           | Round           | Pink spring flowers, orange fall color.<br>Because of early bloom/late frosts,<br>will seldom produce fruit here.           | S                 |
| S                 |                | <i>Prunus cerasifera</i> and cvs.<br>Plum: Purple Flowering |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Sandy-loam<br>Adaptable          | 15-30/15-<br>25' - fast          | Round           | Trunk cracking. Short lived.  | 457S              |
| S                 |                | <i>Prunus cerasus</i> and cvs.<br>Cherry: Sour              |                        |                         |             |                             |                        |                          |                             |                       |                               |          | Sandy-loam                       | 10-20/10-<br>15' - mod-<br>fast  | Round           | Prefers sandy loam with good drainage.  | 45S               |

**DECIDUOUS TREES**

| Water Requirement   | Expanded Range  | Botanical Name<br>Common Name                                   | 1. Semiarid Shrublands  | 2. Pinn-jumper Woods | 3. Prairies   | 4. Lower Elevation Riparian   | 5. Foothill Shrublands  | 6. Ponderosa Pine Forest  | 7. Upper Elevation Riparian   | 8. Douglas-fir Forest | Approved Forestry Street Tree | Exposure              | Soil Preference / Tolerance | Height / Width - Growth Rate | Habit / Form   | Comments  | Part Schedule Key |
|---|---|---|---|----------------------|---|---|---|---|---|-----------------------|-------------------------------|-----------------------|-----------------------------|------------------------------|--|-----------|-------------------|
|  |   | <i>Prunus maackii</i><br>Chokecherry; Amur                      |   |                      |    |   |    |    |    | 2                     | S                             | Sandy-loam            | 20-30'/15-20' - mod         | Broad Oval                   | Very sensitive to overwatering.  | 478A      |                   |
|  |   | <i>Prunus nigra</i> and cvs.<br>Plum; Canada                    |   |                      |    |   |    |    |    | 2                     | S                             | Adaptable             | 20-30'/10-20' - mod         | Upright                      | Suckering habit.   | 467S      |                   |
|  |   | <i>Prunus padus</i><br>Cherry; Mayday Tree, European Birdcherry |   |                      |   |   |    |   |   | 4                     | S                             | Clay-loam             | 30-40'/10-15' - mod         | Upright                      | Suckering habit. Hardiness problems, use in protected sites only.                                    | S         |                   |
|  |    | <i>Prunus pensylvanica</i><br>Cherry; Pin, Wild Red             |    |                      |    |    |      |    |    | 2                     | S                             | Adaptable             | 15-20'/10-15' - fast        | Irregular                    | Flowers, fruit and fall color. Attracts wildlife.  | 1245678DA |                   |
|  |   | <i>Prunus tomentosa</i><br>Cherry; Nanking                      |    |                      |    |    |      |    |    | 3                     | S PS                          | Adaptable             | 10-15'/10' - mod-fast       | Broad Oval                   | Fragrant; pink flowers in early spring. Scarlet, edible fruit.                                       | 245A      |                   |
|  |    | <i>Prunus virginiana</i> and cvs.<br>Chokecherry                |    |                      |    |    |      |    |    | 2                     | S                             | Adaptable             | 20-25'/10-15' - mod-fast    | Upright Oval                 | Root suckering. Attracts wildlife. White flowers and red fruit.                                      | 1245678SA |                   |
|  |   | <i>Pyrus calleryana</i> and cvs.<br>Pear; Callery, Bradford     |   |                      |   |   |   |   |   | 6                     | S                             | Sandy-loam Clay       | 30-40'/20-30' - mod         | Upright Oval                 | Protect. Tolerates drought and pollution. Branches can split.  | A         |                   |
|  |   | <i>Quercus alba</i><br>Oak; White                               |   |                      |   |   |   |   |   | 4                     | S PS                          | Adaptable             | 50-75'/40-80' - slow        | Broad Rounded                | Late leaf fall. Does not tolerate compacted soil. Width generally more than height.                  | S         |                   |
|  |   | <i>Quercus bicolor</i><br>Oak; Swamp, White                     |   |                      |   |   |   |   |   | 4                     | S                             | Clay                  | 50-60'/40-50' - slow        | Round                        | Tolerates poor drainage.   | 4S        |                   |
|  |  | <i>Quercus gambelii</i><br>Oak; Gambel, Scrub                   |  |                      |  |  |    |  |  | 4                     | S                             | Sandy-loam            | 15-30'/15-20' - slow        | Irregular                    | Difficult to transplant. Creeping root habit. Extremely hardy. Poor availability. Do not over-water. | 125678DA  |                   |
|  |  | <i>Quercus macrocarpa</i><br>Oak; Bur                           |   |                      |  |   |   |   |   | 4                     | S                             | Adaptable, Alkaline   | 50-80'/40-60' - slow        | Broad Oval                   | Does not tolerate compacted soil. Drought tolerant.  | 4DA       |                   |
|  |   | <i>Quercus robur</i> and cvs.<br>Oak; English                   |   |                      |   |   |   |   |   | 5                     | S                             | Loam                  | Varies - slow               | Broad Oval                   | Fastigate variety available. Requires acid soil.   | S         |                   |
|  |   | <i>Quercus rubra</i><br>Oak; Northern Red                       |   |                      |  |   |   |   |   | 5                     | S                             | Sandy-loam, Adaptable | 50-80'/40-60' - slow        | Broad Rounded                | Late leaf fall.  | 4S        |                   |
|  |   | <i>Rhamnus cathartica</i><br>Buckthorn; Common                  |  |                      |   |   |  |   |   | 2                     | S PS                          | Adaptable             | 18-25'/15-20' - mod-fast    | Broad Oval                   | Background, screen. Good in difficult growing conditions. Attractive fruit, draws wildlife.          | 256D      |                   |
|  |   | <i>Rhamnus frangula</i> and cvs.<br>Buckthorn; Tallhedge        |   |                      |  |  |    |  |   | 2                     | S PS                          | Sandy-loam            | 10-15'/8-12' - mod-fast     | Upright                      | Can be trained as a tree. Attractive fruit, draws birds. Use cultivars.                              | 45D       |                   |
|  |  | <i>Rhus glabra</i><br>Sumac; Smooth                             |   |                      |  |  |    |  |   | 2                     | S                             | Adaptable             | 8-15'/8-10' - mod-fast      | Upright Oval                 | Colonizes, suckers and develops in all directions from the mother plant. Red fall color.             | 567AD     |                   |

# DECIDUOUS TREES

| Water Requirement | Expanded Range | Botanical Name<br>Common Name                                 | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | Exposure                         | Soil Preference / Tolerance | Height / Width – Growth Rate | Habit / Form  | Comments  | Plant Schedule Key |
|-------------------|----------------|---|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|----------------------------------|-----------------------------|------------------------------|---|---|--------------------|
| A                 | D              | <i>Rhus typhina</i> and cvs.<br>Sumac; Staghorn               | G                      | G                       | G           | H                           | H                      | H                        |                             | 3                     | S                             | Adaptable                        | Varies – mod-fast           | Varies                       | Upright   | Stuckering habit. Red fall color. Does well in poor soil. | 567AD              |
| D                 | A              | <i>Robinia neomexicana</i><br>Locust; New Mexico              | G                      | G                       | G           | B                           | B                      | B                        |                             | 2                     | S                             | Adaptable                        | 6-20/10-20' – fast          | Irregular                    | Pink flower. Thorns. Aggressive spreader. Can escape cultivation and become invasive.         | 2345678DA   |                    |
| D                 | A              | <i>Robinia pseudoacacia</i><br>Locust; Black                  | G                      | H                       | G           | C                           | C                      | C                        |                             | 3                     | S                             | Loams, Limestone                 | 30-50/20-30' – fast         | Upright Irregular            | Borers serious in most trees.   | 45DA  |                    |
| W                 |                | <i>Salix alba</i> and cvs.<br>Willow; White                   |                        |                         | C           | C                           | C                      | C                        |                             | 2                     | S                             | Clay-loam, Sandy-loam, Adaptable | 30-40/30-40' – fast         | Vase                         | Moderate to high water needs. Does not thrive in shallow, alkaline soil.                      | 47W   |                    |
| W                 |                | <i>Salix amygdaloides</i><br>Willow; Peachleaf, Almond Leaved |                        |                         | N           | N                           | N                      | N                        |                             | 5                     | S                             | Clay-loam                        | 30-40/25-30' – fast         | Upright Irregular            | High water needs.   | 47W   |                    |
| W                 |                | <i>Salix spp. and cvs.</i><br>Willow                          |                        |                         | B           | B                           | B                      | B                        |                             | Varies                | S                             | Sandy-loam, Clay-loam            | Varies                      | Varies                       | High water needs.   | 47W   |                    |
| S                 |                | <i>Sorbus aucuparia</i> and cvs.<br>Mountain Ash; European    |                        |                         | C           | C                           | C                      | C                        |                             | 3                     | S                             | Clay-loam                        | 15-30/15-20' – mod          | Upright Oval                 | Colorful ornamental. Best with regular water. Susceptible to fireblight.                      | 478S  |                    |
| S                 |                | <i>Sorbus x thuringiaca</i><br>Mountain Ash; Oakleaf          |                        |                         | C           | C                           | C                      | C                        |                             | 4                     | S                             | Loam                             | 20-30/20-30' – slow         | Pyramidal                    | Hardness problems. Susceptible to fireblight.   | 7S  |                    |
| A                 |                | <i>Syringa pekinensis</i><br>Lilac; Peking                    |                        |                         |             |                             |                        |                          |                             | 3                     | S                             | Sandy-loam, Clay-loam            | 15-20/10-15'                | Upright Oval                 | Large shrub or small multi-stemmed tree. Fragrant white flowers. Blooms early summer.         | A   |                    |
| S                 |                | <i>Syringa reticulata</i> and cvs.<br>Lilac; Japanese Tree    |                        |                         | C           | C                           | C                      | C                        |                             | 4                     | S                             | Sandy-loam, Adaptable            | 20-30/15-25' – mod          | Broad Oval                   | Protected sites only. White flowers.  | 4S  |                    |
| S                 |                | <i>Tilia americana</i> and cvs.<br>Linden; American Basswood  |                        |                         | C           | C                           | C                      | C                        |                             | 3                     | S                             | Sandy-loam                       | 50-75/25-30' – mod-slow     | Upright Oval                 | Seed litter. Fragrant flowers, reddish bark in winter.  | 4S  |                    |
| S                 |                | <i>Tilia cordata</i> and cvs.<br>Linden; Littleleaf           |                        |                         | C           | C                           | C                      | C                        |                             | 4                     | S                             | Sandy-loam, Clay-loam            | 30-50/15-20' – mod          | Pyramidal                    | Included branching. Seed litter. Fragrant flowers.  | 4S  |                    |
| S                 |                | <i>Tilia tomentosa</i> and cvs.<br>Linden; Silverleaf         |                        |                         | C           | C                           | C                      | C                        |                             | 4                     | S                             | Adaptable                        | 50-75/25-30' – mod          | Upright Oval                 | Seed litter. Late leaf fall.  | 4S  |                    |
| D                 | A              | <i>Ulmus spp. and cvs.</i><br>Elm                             |                        |                         | H           | H                           | H                      | H                        |                             | Varies                | S                             | Sandy-loam, Adaptable            | 50-60/40-50' – mod          | Varies                       | Occasional uplift of sidewalks, shallow roots. Use disease resistant varieties only. Reseeds. | 457DA   |                    |
| A                 |                | <i>Viburnum lantana</i> and cvs.<br>Viburnum; Wayfaringtree   |                        |                         | C           | C                           | C                      | C                        |                             | 4                     | S                             | Adaptable                        | Varies – mod                | Broad Rounded                | Flowers; fruit, fall color, striking gray bark.   | 456A  |                    |
| A                 |                | <i>Viburnum prunifolium</i><br>Viburnum; Blackhaw             |                        |                         | C           | C                           | C                      | C                        |                             | 3                     | S                             | Adaptable                        | 12-15/10-15'                | Broad Rounded                | White flowers, blue-black fruit. Fall color bronze-red.                                       | A   |                    |



Water Requirement

Expanded Range

Botanical Name

Common Name

1. Semiarid Shrublands

2. Piñon-Juniper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

USDA Hardiness Zone

Approved Forestry Street Tree

Exposure

Soil Preference/Tolerance

Height / Width – Growth Rate

Habit/Form

Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name   | Common Name | 1. Semiarid Shrublands | 2. Piñon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Forestry Street Tree | Exposure                       | Soil Preference/Tolerance | Height / Width – Growth Rate | Habit/Form  | Comments | Plant Schedule Key |
|-------------------|----------------|--|-------------|------------------------|------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|-------------------------------|--------------------------------|---------------------------|------------------------------|---|----------|--------------------|
|                   |                | <i>Abies concolor</i><br>Fir: White                              |             |                        |                        |             |                             |                        |                          |                             |                       | 4                   | <br><br>                      | Sandy-loam<br>Clay             | 50-75'/15-25' – slow      | Upright<br>Oval              | Stately landscape tree.   | 45678SA  |                    |
|                   |                | <i>Abies lasiocarpa</i> and cvs.<br>Fir: Alpine                  |             |                        |                        |             |                             |                        |                          |                             |                       | 2                   | <br><br>                      | Coarse-loam                    | 100-160'/>50' – slow      | Pyramidal                    | Prefers high water. Dwarf forms available. Not adaptable to clay soils.                       | 78S      |                    |
|                   |                | <i>Arctostaphylos uva-ursi</i><br>Kinnikinnick                   |             |                        |                        |             |                             |                        |                          |                             |                       | 2                   | <br>                          | Sandy                          | 3-4'/6-12" – slow         | Spreading                    | Slow to establish. Red fruit. Low growing ground cover. Evergreen.                            | 5678DA   |                    |
|                   |                | <i>Cercocarpus ledifolius</i><br>Mahogany: Curl-leaf Mountain    |             |                        |                        |             |                             |                        |                          |                             |                       | 3                   |                               | Sandy-loam                     | 6-20'/6-15' – slow        | Broad Oval                   | Does not thrive in clay soil. Evergreen.  | 1256D    |                    |
|                   |                | <i>Coryphantha vivipara</i><br>Cactus: Spiny-star                |             |                        |                        |             |                             |                        |                          |                             |                       | 3                   |                               | Coarse                         | 1-3" stem clump to 12"    | Clump                        | Better with some supplemental irrigation. Stems 2-4", clump forming. Flowers pink to magenta. | 12356D   |                    |
|                   |                | <i>Cytisus scoparius</i> and cvs.<br>Broom: Common               |             |                        |                        |             |                             |                        |                          |                             |                       | 5                   |                               | Adaptable                      | 4-6'/4-6' – mod           | Broad Oval                   | Good in poor soils. Self sows. Needs yearly pruning to maintain shape.                        | D        |                    |
|                   |                | <i>Cytisus x praecox</i><br>Broom: Warminster                    |             |                        |                        |             |                             |                        |                          |                             |                       | 6                   |                               | Adaptable                      | 6-8'/6-8' – mod           | Broad Oval                   | In some, flowers may have unpleasant odor.  | D        |                    |
|                   |                | <i>Echinocereus triglochidiatus</i><br>Cactus: Claret-cup        |             |                        |                        |             |                             |                        |                          |                             |                       | 4                   |                               | Sandy, Gravelly                | 4-6" stems clump to 3'    | Clump                        | Each clump can have up to 30 stems. Scarlet flowers, edible fruit.                            | 123D     |                    |
|                   |                | <i>Echinocereus viridiflorus</i><br>Cactus: Hedgehog             |             |                        |                        |             |                             |                        |                          |                             |                       | 4                   |                               | Adaptable                      | 2" stem clump to 8"       | Clump                        | Each stem 2-4" in diameter, grows in clumps. Flowers bright yellow-green.                     | 12356D   |                    |
|                   |                | <i>Euonymus bungeanus</i> and cvs.<br>Euonymus: Winterberry      |             |                        |                        |             |                             |                        |                          |                             |                       | 4                   | <br>                          | Adaptable                      | 15-20'/10-15' – mod       | Round                        | May be trained as a tree. Attractive fruit.   | S        |                    |
|                   |                | <i>Euonymus fortunei</i> and cvs.<br>Euonymus                    |             |                        |                        |             |                             |                        |                          |                             |                       | 4                   | <br>                          | Sandy, Sandy-loam<br>Adaptable | <6'/4' – mod              | Spreading                    | Protect. Does not do well in heavy, wet soils.  | S        |                    |
|                   |                | <i>Euonymus kiautschovica</i> 'Mambattan'<br>Euonymus: Mambattan |             |                        |                        |             |                             |                        |                          |                             |                       | 5                   |                               | Sandy, Sandy-loam<br>Adaptable | 4-6'/6-8' – mod           | Round                        | Protect. Does not do well in heavy, wet soils.  | SA       |                    |

**LEGEND**

= dry 13" - 20"

= adaptable 18" - 28"

= steady 23" - 38"

= wet > 36"

= Native to Colorado Springs

= Borrowed from similar regional plant community

= Historically adapted introduced plant

= Compatible with plant community

= Other plants to try

**Exposure**

= Sun

= Part-Sun

= Shade

**Plant Community**

**FOOTHILLS**

**FOOTHILLS AND PLAINS**

**PLAINS**

8 Douglas-fir Forest

7 Upper Elevation Riparian

6 Ponderosa Pine Forest

5 Foothill Shrublands

4 Lower Elevation Riparian

3 Prairies

2 Piñon-Juniper Woods

1 Semiarid Shrublands

Expanded Range

Water Requirement

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1. Semiarid Shrublands

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Approved Forestry Street Tree

USDA Hardiness Zone

Exposure

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Height / Width - Growth Rate

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Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name                         | Common Name                    | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Approved Forestry Street Tree | USDA Hardiness Zone | Exposure | Soil Preference / Tolerance | Height / Width - Growth Rate | Habit / Form | Comments  | Plant Schedule Key |
|-------------------|----------------|--|--------------------------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------------|---------------------|----------|-----------------------------|------------------------------|--------------|---|--------------------|
|                   |                | <i>Juniperus chinensis</i> and cvs.    | Juniper: Chinese, Upright      |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | 20-30'/10-15' - mod          | Columnar     | Many cultivars and uses. Very hardy. Better with regular water.   | 2568DA             |
|                   |                | <i>Juniperus chinensis</i> and cvs.    | Juniper: Chinese               |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | 2-3'/4-6' - mod              | Varies       | Many cultivars and uses. Very hardy. Better with regular water.   | DA                 |
|                   |                | <i>Juniperus communis</i> and cvs.     | Juniper: Common                |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Sandy-loam, Adaptable       | 1-3'/3-6' - slow             | Varies       | Many cultivars and uses. Native to dry sterile soil, rock outcrops.   | 12568DA            |
|                   |                | <i>Juniperus horizontalis</i> and cvs. | Juniper: Creeping              |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | <1.5'/4-12'                  | Varies       | Adapts to sandy, rocky soils. Many cultivars and uses.  | 2568A              |
|                   |                | <i>Juniperus x media</i> and cvs.      | Juniper: Pfitzer, Old Gold     |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | Varies - slow                | Varies       | Many cultivars.   | DA                 |
|                   |                | <i>Juniperus monosperma</i>            | Juniper: One-Seed              |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable, Alkaline         | 15-20'/15-20' - slow         | Irregular    | Tolerates drought once established.   | 12568D             |
|                   |                | <i>Juniperus procumbens</i>            | Juniper: Green Mound           |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | Varies - slow                | Varies       | Yellow green leaves become slightly purple in winter.   | 568A               |
|                   |                | <i>Juniperus sabina</i> and cvs.       | Juniper: Savin                 |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | Varies - slow                | Varies       | Many cultivars.   | 568A               |
|                   |                | <i>Juniperus squamata</i>              | Juniper: Blue Star, Singleseed |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | 15-18"/2-3' - slow           | Spreading    | Bluish-white foliage  | A                  |
|                   |                | <i>Juniperus scopulorum</i> and cvs.   | Juniper: Rocky Mountain        |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | 15-20'/20-30' - slow         | Pyramidal    | Rocky Mountain native.  | 125678D            |
|                   |                | <i>Juniperus virginiana</i> and cvs.   | Juniper: Eastern Redcedar      |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Adaptable                   | Varies - slow                | Varies       | Related to <i>Juniperus scopulorum</i> .  | 2568A              |
|                   |                | <i>Mahonia aquifolium</i> and cvs.     | Grapeholly: Oregon             |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Coarse-loam, Alkaline       | Varies - slow                | Irregular    | Spreads by stolons. Good in shade. Dwarf cultivars available. Prefers well drained soils, does not do well in heavy clay. | 4S                 |
|                   |                | <i>Mahonia repens</i>                  | Mahonia: Creeping              |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Coarse-loam, Alkaline       | 18"/18"                      | Irregular    | Blue fruit. Good fall color. Early yellow flowers. Needs more water in sun.   | 45678AD            |
|                   |                | <i>Opuntia imbricata</i>               | Cactus: Cholla                 |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Sandy                       | 2-4'/2-4'                    | Upright      | Cylindrical jointed. Thicket forming shrub. Large/showy pink to magenta flowers. Fruit persists.                          | 13D                |
|                   |                | <i>Opuntia</i> spp.                    | Cactus: Prickly-pear           |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Sandy                       | 3x5" pad/clump to 1-3'       | Varies       | Flat, broad joints. Flower color varies.  | 123456D            |
|                   |                | <i>Pediocactus</i> spp.                | Cactus: Mountain-ball          |                        |                         |             |                             |                        |                          |                             |                       |                               |                     |          | Sandy                       | 4-5" stem/clump to 8"        | Clump        | Needs supplemental irrigation in sandy soil. Pink to white flowers in early spring.                                       | 5D                 |

EVERGREEN TREES, SHRUBS, AND VINES

Expanded Range  
 Water Requirement  
 Botanical Name  
 Common Name  
 1. Semiarid Shrublands  
 2. Pinyon-Juniper Woods  
 3. Paines  
 4. Lower Elevation Riparian  
 5. Foothill Shrublands  
 6. Ponderosa Pine Forest  
 7. Upper Elevation Riparian  
 8. Douglas-fir Forest  
 USDA Hardiness Zone  
 Approved Forestry Street Tree  
 Exposure  
 Soil Preference / Tolerance  
 Height / Width - Growth Rate  
 Habit / Form  
 Comments  
 Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name   | Common Name | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Paines | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Forestry Street Tree | Exposure | Soil Preference / Tolerance     | Height / Width - Growth Rate | Habit / Form | Comments  | Plant Schedule Key |
|-------------------|----------------|--|-------------|------------------------|-------------------------|-----------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|-------------------------------|----------|---------------------------------|------------------------------|--------------|---|--------------------|
|                   |                | <i>Picea abies</i> and cvs.<br>Spruce: Norway          |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Loam                            | 40-60/25-30' - mod           | Varies       | Needs regular water. Dwarf varieties available.                           | 78S                |
|                   |                | <i>Picea engelmannii</i> and cvs.<br>Spruce: Englemann |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Adaptable           | 50-75/15-25' - slow          | Irregular    | High elevation tree. Needs regular water.                                 | 8S                 |
|                   |                | <i>Picea glauca</i> and cvs.<br>Spruce: White          |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Clay-loam           | Varies - slow                | Varies       | Protect from drying winter winds.   | W                  |
|                   |                | <i>Picea pungens</i> and cvs.<br>Spruce: Blue          |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Clay-loam           | Varies - slow                | Pyramidal    | High elevation tree. Needs regular water. Dwarf varieties available.      | 678S               |
|                   |                | <i>Pinus aristata</i><br>Pine: Bristlecone             |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Adaptable           | 20-40/10-20' - slow          | Irregular    | Dense, bushy branches.  | 45678DA            |
|                   |                | <i>Pinus cembra</i> 'Nana'<br>Pine: Dwarf Swiss Stone  |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Adaptable           | 3-6/3-6' - slow              | Upright Oval | Slow growing when young. Branched to the ground.                          | A                  |
|                   |                | <i>Pinus edulis</i><br>Pine: Pinon                     |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Adaptable                       | 15-25/12-15' - slow          | Upright Oval | Best in dry environment. Don't overwater. Edible seed.                    | 1256D              |
|                   |                | <i>Pinus contorta</i><br>Pine: Lodgepole               |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam                      | 30-50/20-25' - slow          | Irregular    | High elevation trees. Needs regular water. Best in shade.                 | 78SA               |
|                   |                | <i>Pinus flexilis</i><br>Pine: Limber                  |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Adaptable           | 30-50/15-35' - slow          | Irregular    | Light bluish-green. Twisted needles. Very slow growth.                    | 568DA              |
|                   |                | <i>Pinus mugo mugo</i> and cvs.<br>Pine: Dwarf Mugo    |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Adaptable                       | 5-10/5-20' - slow            | Irregular    | This dwarf is often confused with larger Mugo Pine ( <i>Pinus mugo</i> ). | 1256D              |
|                   |                | <i>Pinus mugo</i><br>Pine: Mugo                        |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Adaptable                       | 15-20/20-25' - slow          | Irregular    | Often confused with smaller Dwarf Mugo Pine ( <i>Pinus mugo mugo</i> ).   | 1256D              |
|                   |                | <i>Pinus nigra</i><br>Pine: Austrian                   |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Clay                | 40-60/30-40' - mod           | Broad Oval   | Needle litter. Tolerant of urban sites.                                   | 25678A             |
|                   |                | <i>Pinus ponderosa</i><br>Pine: Ponderosa              |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Sandy-loam, Adaptable, Alkaline | 50-100/20-30' - mod          | Varies       | Needle litter.  | 2678D              |
|                   |                | <i>Pinus strobiformis</i><br>Pine: Southwestern White  |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Adaptable                       | 40-50/20-30' - mod           | Pyramidal    | May be hard to find in the trade.   | 56AD               |
|                   |                | <i>Pinus strobus</i> and cvs.<br>Pine: Eastern White   |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Adaptable                       | 50-80/20-40' - mod-fast      | Pyramidal    | Many cultivars, including dwarf.  | 45S                |
|                   |                | <i>Pinus sylvestris</i><br>Pine: Scotch                |             |                        |                         |           |                             |                        |                          |                             |                       |                     |                               |          | Adaptable                       | 30-50/20-30' - mod-fast      | Varies       | Fast growth rate, good screening.   | 5678S              |

Water Requirement

Expanded Range

Botanical Name

Common Name

1. Sentinal Shrublands

2. Pnon-Juniper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

USDA Hardiness Zone

Approved Forestry Street Tree

Exposure

Soil Preference / Tolerance

Height / Width – Growth Rate

Habit / Form

Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanical Name   | Common Name | 1. Sentinal Shrublands | 2. Pnon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Approved Forestry Street Tree | Exposure            | Soil Preference / Tolerance | Height / Width – Growth Rate | Habit / Form  | Comments | Plant Schedule Key |
|-------------------|----------------|--|-------------|------------------------|-----------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|-------------------------------|---------------------|-----------------------------|------------------------------|---|----------|--------------------|
|                   |                | <i>Pseudotsuga menziesii</i><br>Douglas-fir              |             |                        |                       |             |                             |                        |                          |                             | 4                     |                     | <br><br>                      | Sandy-loam          | 50-75' / 20-25' – mod       | Upright<br>Oval              | Does well on shady sites.   | 4678S    |                    |
|                   |                | <i>Pyracantha</i> spp. and cvs.<br>Pyracantha, Firethorn |             |                        |                       |             |                             |                        |                          |                             | 5                     |                     | <br>                          | Adaptable           | 4-6/4-6' – mod-slow         | Irregular                    | White flowers, red-orange berries. Needs protection above 6000'.    | 457S     |                    |
|                   |                | <i>Taxus x media</i> and cvs.<br>Yew: Dense, Upright     |             |                        |                       |             |                             |                        |                          |                             | 5                     |                     | <br>                          | Adaptable, Alkaline | Varies-slow                 | Varies                       | Protected locations only.   | W        |                    |
|                   |                | <i>Yucca filamentosa</i><br>Yucca: Adam's Needle         |             |                        |                       |             |                             |                        |                          |                             | 4                     |                     | <br>                          | Coarse, Sandy-loam  | 2-3/3-5' – mod              | Broad<br>Rounded             | Clump forming.  | 1235D    |                    |
|                   |                | <i>Yucca glauca</i><br>Yucca: Narrow-leaf                |             |                        |                       |             |                             |                        |                          |                             | 2                     |                     |                               | Adaptable           | 2-4/2-4' – mod              | Broad<br>Rounded             | Attractive foliage. Large white flowers. May not flower every year. | 123456D  |                    |

EVERGREEN TREES, SHRUBS, AND VINES

Water Requirement

Expanded Range

Botanic Name

Common Name

1. Semiarid Shrublands

2. Pinyon-Juniper Woods

3. Prairies

4. Lower Elevation Riparian

5. Foothill Shrublands

6. Ponderosa Pine Forest

7. Upper Elevation Riparian

8. Douglas-fir Forest

Tree / Shrub Equivalent

Plant Type

Exposure

Flower Color

Bloom Time

Height / Width

Comments

Plant Schedule Key

| Water Requirement | Expanded Range | Botanic Name   | Common Name | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tree / Shrub Equivalent | Plant Type | Exposure         | Flower Color | Bloom Time  | Height / Width   | Comments | Plant Schedule Key |
|-------------------|----------------|--|-------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|------------|------------------|--------------|-------------|--|----------|--------------------|
|                   |                | <i>Achillea filipendulina</i> and cvs.<br>Yarrow: Fernleaf           |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Yellow           | Varies       | Varies      | Sizes vary. Large flat flowerhead.   | 1356D    |                    |
|                   |                | <i>Achillea millefolium</i><br>Yarrow: Common                        |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | White, Pink, Red | 18-24"/3-4'  | 18-24"/3-4' | Escaped cultivation. Reseeds and spreads, can be invasive.   | 1356A    |                    |
|                   |                | <i>Achillea lamulosa</i><br>Yarrow: Wild                             |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | White            | 18-24"/3-4'  | 18-24"/3-4' | Difficult to distinguish from <i>A. millefolium</i> . Reseeds and spreads, can be invasive.                  | 1356A    |                    |
|                   |                | <i>Aconitum columbianum</i><br>Monkshood                             |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Blue-purple      | 2-4'/same    | 2-4'/same   | Grows in wet places. All parts of the plant are poisonous.   | 47W      |                    |
|                   |                | <i>Allium tuberosum</i><br>Chives                                    |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | White            | 8-10"/8-12"  | 8-10"/8-12" | Grass-type leaves, with mild garlic odor. Round flowers.   | 1345678A |                    |
|                   |                | <i>Anaphalis margaritacea</i><br>Pearly Everlasting                  |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | White            | 1-2'/2-3'    | 1-2'/2-3'   | Will tolerate lower water, but loses its lower leaves. Flowers are good for drying.                          | 685A     |                    |
|                   |                | <i>Anemone hupchensis</i> and <i>x. hybrida</i><br>Anemone: Japanese |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | White, Pink      | 2-3'/same    | 2-3'/same   | Mounded low foliage. Flowers on tall stalks. Needs winter protection.  | 4S       |                    |
|                   |                | <i>Aquilegia caerulea</i><br>Columbine: Rocky Mountain               |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Blue-purple      | 12-18'/same  | 12-18'/same | State flower: Blue and white flower.   | 578A     |                    |
|                   |                | <i>Aquilegia chrysantha</i><br>Columbine: Yellow/Golden Spur         |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Yellow           | 12-18'/same  | 12-18'/same | Mounded plant; flowers borne on stalks above foliage.  | 56A      |                    |
|                   |                | <i>Aquilegia canadensis</i> , <i>A. flabellata</i><br>Columbine      |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Varies           | Varies       | May - July  | Multi-colored flowers ranging from blues and purples, to yellows and reds. Deadhead to prolong bloom period. | 5678SA   |                    |
|                   |                | <i>Armeria maritima</i> and cvs.<br>Thrift: Common                   |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Pink, White      | 10-12'/same  | 10-12'/same | Provide afternoon shade in hot exposures. Grass-like leaves. Generally blooms May-September.                 | 457SA    |                    |
|                   |                | <i>Artemisia frigida</i><br>Sagebrush: Fringed, Silver Sage          |             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                 |            | Yellow           | 12-18'/same  | 12-18'/same | Semi-woody sub-shrub. Silver leaves.   | 12356D   |                    |

### LEGEND

= dry 13" - 20"

= adaptable 18" - 28"

= steady 23" - 38"

= wet > 36"

= Native to Colorado Springs

= Borrowed from similar regional plant community

= Historically adapted introduced plant

= Compatible with plant community

= Other plants to try

**Exposure**

= Sun

= Part-Sun

= Shade

**Plant Community**

8 Douglas-fir Forest

7 Upper Elevation Riparian

6 Ponderosa Pine Forest

5 Foothill Shrublands

4 Lower Elevation Riparian

3 Prairies

2 Pinyon-Juniper Woods

1 Semiarid Shrublands

**FOOTHILLS**

**FOOTHILLS AND PLAINS**

**PLAINS**

**FLOWERS**

| Water Requirement | Expanded Range | Botanic Name  | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tree / Shrub Equivalent | Plant Type | Exposure            | Flower Color           | Bloom Time     | Height / Width  | Comments | Plant Schedule Key |
|-------------------|----------------|---|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|------------|---------------------|------------------------|----------------|---|----------|--------------------|
|                   |                | <i>Artemisia ludoviciana</i> and cvs. Sagebrush: Prairie Sage, Louisiana Sage                               |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Yellow              | September              | 2-4'/ same     | Spreading habit. Grown for white-gray foliage.  | 12356D   |                    |
|                   |                | <i>Artemisia schmidiana</i> and cvs. Sage: Silvermound  |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Yellow              | August                 | 12-18"/ 18-24" | Plant for silver foliage and soft texture.  | 356A     |                    |
|                   |                | <i>Aster novae-angliae</i> and cvs., <i>A. novi-belgii</i> and cvs., <i>A. x frikartii</i> and cvs. Aster   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Varies              | Varies                 | Varies         | A well-adapted perennial for Colorado. Numerous colors, bloom times, sizes & shapes.        | 4A       |                    |
|                   |                | <i>Aurinia saxatilis</i> Basket-of-Gold   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Yellow              | April through May      | 8-12"/ 12-18"  | Gray-green mounded foliage. Good spring bloom.  | A        |                    |
|                   |                | <i>Boltonia asteroides</i> and cvs. Boltonia, Starflower  |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | White               | August through October | Varies by cv.  | Aster-like flowers. Tall plants, useful for back of the border plantings.                   | SA       |                    |
|                   |                | <i>Campanula carpatica</i> and cvs. Bellflower: Tussock, Carpathian Harebell                                |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Blue, White         | Varies                 | 6-12'/ 12-18"  | A long-blooming bell-shaped flower.   | 568S     |                    |
|                   |                | <i>Centranthus ruber</i> Red Valerian, Jupiter's Beard  |                        |                         |             |                             |                        |                          |                             | 4                     | Flowers                 |            | Reddish-pink        | June through August    | 18'/ 12-24"    | Flower color can vary, buy in bloom to assure color. Tiny flowers in clusters.              | SA       |                    |
|                   |                | <i>Coreopsis lanceolata</i> and cvs., <i>C. verticillata</i> and cvs. Coreopsis, Tickseed                   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Yellow              | Varies                 | Varies         | Many varieties. A daisy-like flower in different sizes, shapes and textures. Long-blooming. | 123A     |                    |
|                   |                | <i>Dalea purpurea</i> (syn. <i>Petalostemum</i> ) Purple Prairie Clover                                     |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Purple              | July through August    | 12-18'/ same   | Good flower effect. Upright habit.  | 235D     |                    |
|                   |                | <i>Delphinium nuttallianum</i> Larkspur   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Blue                | April through June     | 12-18'/ same   | A nice compact delphinium.  | 136DA    |                    |
|                   |                | <i>Delphinium occidentale</i> Larkspur: Tall Mountain   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Blue                | April through June     | 3-6'           | Difficult to distinguish from other tall species.   | 78DA     |                    |
|                   |                | <i>Dendranthema x morifolium</i> and cvs. (syn. <i>Chrysanthemum</i> ) Chrysanthemum: Garden Mum, Hardy Mum |                        |                         |             |                             |                        |                          |                             | 4                     | Flowers                 |            | Varies              | Varies                 | 12-24"/ 12-18" | Vary in sizes, shapes and textures. Bloom time varies from late August through November.    | A        |                    |
|                   |                | <i>Dianthus deltoides</i> and cvs. Pinks: Maiden Pink   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Pink, Red, White    | June through July      | 6-12'/ same    | Some cvs. have purplish leaves. Many color combinations available.                          | A        |                    |
|                   |                | <i>Dicentra spectabilis</i> and cvs., <i>D. eximia</i> and cvs. Bleeding Heart                              |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Pink and white      | May through June       | 2-3'/ same     | Interesting flower, resembles a "bleeding heart." Needs water.                              | S        |                    |
|                   |                | <i>Echinacea purpurea</i> and cvs. Coneflower: Purple   |                        |                         |             |                             |                        |                          |                             | 3                     | Flowers                 |            | Purple, White       | July through September | 24-36"/ 18-24" | Daisy-like flowers. Greenish-red foliage.   | 345A     |                    |
|                   |                | <i>Erigeron caespitosus</i> Fleabane Daisy  |                        |                         |             |                             |                        |                          |                             | varies                | Flowers                 |            | Purple, Blue, White | Varies. Late Summer    | Varies         | Aster-like flowers.   | 123DA    |                    |

**FLOWERS**

| Water Requirement | Expanded Range | Botanic Name  | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tree / Shrub Equivalent | Plant Type | Exposure | Flower Color                    | Bloom Time                 | Height / Width    | Comments  | Plant Schedule Key |
|-------------------|----------------|---|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|------------|----------|---------------------------------|----------------------------|-------------------|---|--------------------|
| A                 |                | <i>Erigeron speciosus</i><br>Fleabane, Fringed Daisy                          |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | PS SH    | Purple                          | June                       | 12-18"/same       | Daisy-like flowers. Does not tolerate heat.                     | 3568A              |
| D                 |                | <i>Eriogonum jamesii</i><br>Buckwheat, James                                  |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | White                           | July                       | Less than 8"/same | Small clustered flowers. Mounded habit. Good fall color.        | 256D               |
| D                 |                | <i>Eriogonum ovalifolium</i><br>Buckwheat, Cushion                            |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | White-yellow                    | July                       | Less than 8"/same | Small clustered flowers. Mounded habit. Good fall color.        | 123D               |
| D                 |                | <i>Eriogonum umbellatum</i><br>Buckwheat, Sulfur Flower                       |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | Yellow                          | July                       | Less than 8"/same | Small clustered flowers. Mounded habit. Good fall color.        | 12356D             |
| D                 |                | <i>Erysimum asperum</i><br>Wallflower   |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | Yellow-orange                   | June through July          | 2-3'/18-24"       | Fragrant flowers.   | 123567D            |
| A                 |                | <i>Euphorbia epithymoides</i> (syn. <i>E. polychroma</i> )<br>Spurge, Cushion |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Bracts are yellow, flowers, red | May                        | 2-3'/same         | Invasive. Sep can be a skin irritant.                           | A                  |
| A                 |                | <i>Gaillardia aristata</i><br>Blanket Flower                                  |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | Red-yellow                      | July through October       | 24-30"/same       | Often interchangeable sold as <i>G. x grandiflora</i> .         | 35A                |
| A                 |                | <i>Gaillardia x grandiflora</i> and cvs.<br>Blanket Flower                    |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | Red-yellow, Burgundy            | June through September     | Varies            | Daisy-like flowers, followed by fuzzy seedhead.                 | 35A                |
| A                 |                | <i>Gaura lindheimeri</i><br>Gaura, Whirling Butterflies                       |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Pinkish-white                   | July through September     | 3-4'/24-36"       | Flowers resemble butterflies.                                   | 35A                |
| D                 |                | <i>Geranium caespitosum</i> , <i>G. fremontii</i><br>Geranium: Wild, Common   |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Pink                            | June                       | 12-18"/same       | Mounded plant.  | 1345678D           |
| A                 |                | <i>Geranium sanguineum</i> and cvs.<br>Geranium                               |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Pink, White                     | Varies                     | 12-18"/same       | Many cvs. available. Mounding habit. Some have good fall color. | 457AS              |
| A                 |                | <i>Geum</i> spp. and cvs.<br>Avens, Geum                                      |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Red, Orange, Yellow             | June                       | 18-24"/12-18"     | Flowers borne on stalks above foliage.                          | A                  |
| D                 |                | <i>Gilia aggregata</i> (syn. <i>Ipomopsis</i> )<br>Gilia, Scarlet             |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Red-orange, Red-pink            | July                       | 18-30"/12"        | Trumpet flowers.  | 12568D             |
| A                 |                | <i>Gypsophila paniculata</i> and cvs.<br>Baby's Breath                        |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | White, Pink                     | June through July          | 24-36"/same       | Gray-green foliage. Tiny flowers on raised stems.               | AD                 |
| A                 |                | <i>Halenium autumnale</i><br>Sneezeweed, Helen's Flower                       |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S        | Yellow, Red, Orange             | August through October     | 3-4'/same         | Good back-of-the-border plant. White fuzzy seedhead.            | 4A                 |
| A                 |                | <i>Heliotropis helianthoides</i> and cvs.<br>Sunflower, Oxeye                 |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | S PS     | Yellow-orange                   | Mid-July through September | 3-4'/same         | Flowers are daisy-like.   | 4A                 |

**FLOWERS**

| Water Requirement | Expanded Range | Botanic Name   | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tree / Shrub Equivalent | Plant Type | Exposure          | Flower Color             | Bloom Time    | Height / Width  | Comments | Plant Schedule Key |
|-------------------|----------------|--|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|------------|-------------------|--------------------------|---------------|---|----------|--------------------|
| D                 |                | <i>Hemerocallis</i> cvs.<br>Daylily  | •                      | •                       | •           | •                           | •                      | •                        | •                           | varies                | Flowers                 | Flowers    | Varies            | June through August      | Varies        | Many sizes, colors and bloom times.   | D        |                    |
| D                 | A              | <i>Heterotheca villosa</i> (syn. <i>Chrysopsis</i> )<br>Aster: Golden              | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Yellow            | Mid-late summer          | 18-24"/same   | Semi-rounoded habit.  | 12567DA  |                    |
| A                 |                | <i>Iberis sempervirens</i> and cvs.<br>Candytuft                                   | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | White             | April through May        | Varies        | Small white flowers in spring spread over a mound of dark green foliage.                          | A        |                    |
| W                 |                | <i>Hliamna rivularis</i> Mallow: Mountain or Streambank Globemallow                | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Pink              | July through August      | 12-24"/same   | Miniature hollyhock. Grows in wet places.   | 7W       |                    |
| A                 |                | <i>Iris germanica</i> and cvs.<br>Iris: Bearded                                    | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Varies            | May through June         | Varies        | Very fragrant flowers in many colors and sizes.   | A        |                    |
| A                 | S              | <i>Iris siberica</i> and cvs.<br>Iris: Siberian                                    | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Blue              | June                     | 1-2/ same     | Grassy foliage. Long-lasting pods.  | A        |                    |
| A                 | D              | <i>Lavandula angustifolia</i> and cvs.<br>Lavender: English                        | •                      | •                       | •           | •                           | •                      | •                        | •                           | 5                     | Flowers                 | Flowers    | Purplish-blue     | July through August      | 1-2/ same     | Fragrant leaves and flowers. Semi-woody.  | AD       |                    |
| A                 |                | <i>Leucanthemum x superbum</i> and cvs. (syn. <i>Chrysanthemum</i> ) Daisy: Shasta | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | White             | June through August      | Varies        | Many sizes, 6" to over 3'. Hardiness zone varies by cv. is generally 3. Check for specific plant. | A        |                    |
| D                 |                | <i>Liatris punctata</i><br>Gayfeather: Dotted, Blazing Star                        | •                      | •                       | •           | •                           | •                      | •                        | •                           | 4                     | Flowers                 | Flowers    | Purple            | August through September | 12-18"/8-12"  | Lighter purple flower than <i>L. spicata</i> .  | 1235D    |                    |
| A                 |                | <i>Liatris spicata</i> and cvs.<br>Gayfeather                                      | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Purple, White     | July through August      | Varies        | Sizes range from 12" to 3'. Good cut flower.  | 1235A    |                    |
| S                 |                | <i>Ligularia dentata</i> and cvs., <i>L. stenocephala</i> and cvs. Ragwort         | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3/4                   | Flowers                 | Flowers    | Yellow            | Varies by cv.            | 3-4/ same     | Likes abundant water. Huge accent plant.  | 4S       |                    |
| A                 |                | <i>Limonium latifolium</i><br>Lavender: Sea, Statice                               | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Whitish-purple    | July through September   | 18-24"/same   | Resembles <i>Gypsophila paniculata</i> , but flowers are smaller. Good fall foliage color.        | A        |                    |
| D                 |                | <i>Linum perenne lewisii</i><br>Flax: Perennial Blue                               | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3/4                   | Flowers                 | Flowers    | Blue              | May through June         | 12-18"/10-18" | Upright, delicate-looking plants. Re-seeds.   | 356A     |                    |
| S                 |                | <i>Lupinus 'Russell Hybrid'</i><br>Lupine: Russell Hybrid                          | •                      | •                       | •           | •                           | •                      | •                        | •                           | 3                     | Flowers                 | Flowers    | Varies            | Mid-June through July    | 30-36"/same   | Subject to mildew and aphids. Good early summer bloom. Re-seeds easily.                           | S        |                    |
| A                 |                | <i>Lupinus argenteus</i> , <i>L. sericeus</i><br>Lupine: Silver/Silky              | •                      | •                       | •           | •                           | •                      | •                        | •                           | 2                     | Flowers                 | Flowers    | Blue-purple, Blue | Mid-June through July    | 12-18"/same   | Species are difficult to identify as the plants easily hybridize.                                 | 13568A   |                    |
| D                 |                | <i>Mentzelia oligosperma</i><br>Blazing Star                                       | •                      | •                       | •           | •                           | •                      | •                        | •                           | 2/3                   | Flowers                 | Flowers    | White             | July through August      | to 2'         | Showy flowers.  | 2356D    |                    |

**FLOWERS**

| Water Requirement | Expanded Range | Botanic Name  | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tree / Shrub Equivalent | Plant Type | Exposure              | Flower Color               | Bloom Time     | Height / Width  | Comments  | Plant Schedule Key |
|-------------------|----------------|---|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|------------|-----------------------|----------------------------|----------------|---|-----------|--------------------|
| S                 |                | <i>Mertensia ciliata</i><br>Chiming Bells                                   | N                      | N                       |             |                             |                        |                          |                             |                       |                         | Flowers    | Blue                  | June through August        | 12-18"/ same   | Subject to mildew. Nice bell flower.  | 678S      |                    |
| D                 |                | <i>Mirabilis multiflora</i><br>Umbrellawort, Desert Four O'clock            | N                      |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Purple                | July through September     | 3-4'/ 4-6'     | Blooms are open only evening through early morning, or on cloudy days. Bell-shaped flower.                                      | 1235D     |                    |
| A                 |                | <i>Narcissus</i> cvs.<br>Daffodil, Narcissus                                |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Yellow, White, Orange | March through May          | 6-24'/ 8-10"   | Early spring-blooming bulb. Many varieties, shapes and sizes. Deer will not browse. Hardiness zones vary, check specific plant. | A         |                    |
| A                 |                | <i>Oenothera missouriensis</i> and cvs.<br>Evening Primrose, Ozark Sundrops |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Yellow                | July through August        | 10-12'/ 18-24" | Large flowers, attractive red seed pod.   | 1356A     |                    |
| S                 |                | <i>Paeonia</i> spp. and cvs.<br>Peony                                       |                        |                         |             |                             |                        |                          |                             | Y                     |                         | Flowers    | Pink, White, Red      | Varies by cv.              | 3-4'/ same     | Large flowers, vibrant colors. Looks like a shrub. Bloom varies from early May to early June.                                   | S         |                    |
| A                 |                | <i>Papaver orientale</i> and cvs.<br>Poppy, Oriental                        |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Varies                | June                       | Varies         | Large flowers with crepe-paper-like petals. Many colors.  | A         |                    |
| D                 |                | <i>Penstemon</i> spp.<br>Penstemon  | N                      | N                       | N           | N                           | N                      | N                        |                             |                       |                         | Flowers    | Varies                | Varies                     | Varies         | Tubular flowers on raised stalks. Heights vary.   | 12345678D |                    |
| D                 |                | <i>Penstemon angustifolia</i><br>Penstemon: Narrow-Leaf                     | B                      | N                       | N           | N                           | N                      | N                        |                             |                       |                         | Flowers    | Blue                  | Summer                     | 1'/1'          | Blue-green leaves.  | 1235D     |                    |
| D                 |                | <i>Penstemon barbatus</i><br>Penstemon: Scarlet Bugler                      | N                      | N                       | N           | N                           | N                      | N                        |                             |                       |                         | Flowers    | Red-orange            | July through August        | 3'/ 2-3'       | Upright habit. Tubular flowers. Provide good air circulation to prevent mildew and rust.  | 2356D     |                    |
| D                 |                | <i>Penstemon strictus</i><br>Penstemon: Rocky Mountain                      | B                      | N                       | N           | N                           | N                      | N                        |                             |                       |                         | Flowers    | Purple                | Mid-June through mid-July  | 3-4'/ same     | Upright habit. Tubular flowers. Provide good air circulation to prevent mildew and rust.  | 125D      |                    |
| D                 |                | <i>Perovskia atriplicifolia</i><br>Sage: Russian                            | C                      | C                       |             |                             |                        |                          |                             | Y                     |                         | Flowers    | Purple                | Mid-July through September | 3-4'/ same     | A shrub that performs like a herbaceous perennial. Pruned to the ground in spring. Fragrant flowers and leaves.                 | 12D       |                    |
| S                 |                | <i>Phlox paniculata</i> and cvs.<br>Phlox: Garden                           |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Varies by cv.         | Varies                     | 3-4'/ 2-3'     | Many different colors available. Large flowerheads. Some are fragrant.  | S         |                    |
| S                 |                | <i>Physostegia virginiana</i> and cvs.<br>False Dragonhead                  |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Pink, White           | September through October  | 2-4'/ same     | Spreading plants. Flowers on stalk.   | S         |                    |
| A                 |                | <i>Potentilla</i> spp.<br>Cinquefoil  |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Yellow                | June through August        | Varies         | Varies from low ground cover to 2'.   | 568A      |                    |
| D                 |                | <i>Pulsatilla patens</i> (syn. <i>Anemone</i> )<br>Pasque Flower            |                        |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Purple                | April                      | 6-12'/ same    | Fuzzy nodding flower. One of the first wildflowers to bloom in spring.  | 568D      |                    |
| A                 |                | <i>Ratibida columnifera</i><br>Coneflower: Prairie, Mexican Hat             | N                      |                         |             |                             |                        |                          |                             |                       |                         | Flowers    | Yellow, Burgundy, Red | July through September     | Varies         | Lacy leaves. Short-lived perennial. Re-seeds.   | 3A        |                    |

# FLOWERS

| Water Requirement | Expanded Range | Botanic Name   | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tea / Shrub Equivalent | Plant Type | Exposure                 | Flower Color               | Bloom Time    | Height / Width  | Comments | Plant Schedule Key |
|-------------------|----------------|--|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|------------------------|------------|--------------------------|----------------------------|---------------|---|----------|--------------------|
|                   |                | <i>Rudbeckia fulgida</i> cvs.<br>Coneflower: Black-eyed Susan          |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Yellow                   | August through September   | 18-24"/same   | Daisy-like flowers with dark centers. Seedheads offer winter texture.   | 47A      |                    |
|                   |                | <i>Rudbeckia hirta</i><br>Daisy: Gloriosa                              |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Yellow, orange, burgundy | July through September     | 12-36"/18-24" | Large multi-colored to single-colored flowers. Short-lived perennial, often grown as annual. Re-seeds easily.                                       | 647A     |                    |
|                   |                | <i>Salvia officinalis</i> and cvs.<br>Sage: Garden                     |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Purple                   | Varies                     | 18-24"/same   | Culinary herb. Many cvs. available, including purple-leaved and variegated forms which may not be as hardy. Bloom is generally June through August. | A        |                    |
|                   |                | <i>Salvia x superba</i> and cvs.<br>Sage: Violet                       |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Purplish-blue            | Mid-June through July      | 2-4'/same     | Re-seeds aggressively. Long lasting flowers. A second bloom occurs late summer.   | A        |                    |
|                   |                | <i>Santolina chamaecyparissus</i><br>Lavender Cotton                   |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Yellow                   | July                       | 12-18"/same   | Semi-woody plant. Gray, scented leaves. Button-like flowers.  | 125D     |                    |
|                   |                | <i>Scabiosa caucasica</i> and cvs.<br>Pin Cushion Flower               |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Blue, White              | July through October       | 30-36"/same   | Flowers on long stems, good for cutting. Deadhead to prolong bloom time.  | 5A       |                    |
|                   |                | <i>Sedum hybrids</i> and cvs.<br>Sedum: Stonecrop                      |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Pink, yellow             | September through mid-Oct. | 12-18"/same   | Seedheads are attractive in the winter.   | A        |                    |
|                   |                | <i>Sidalcea candida</i><br>Mallow: Checkermallow                       |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | White                    | Summer                     | 18-24"/12-24" | Grows in moist places.  | 7W       |                    |
|                   |                | <i>Sidalcea malviflora</i><br>Mallow: Prairie                          |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Pink                     | July through August        | 18-24"/12-24" | Looks like a miniature hollyhock, but with shiny leaves.  | A        |                    |
|                   |                | <i>Sphaeralcea coccinea</i><br>Mallow: Scarlet Globemallow             |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Orange-red               | May through June           | 18-24"/same   | Clefted silvery-green leaves, mallow-type flowers.  | 1235D    |                    |
|                   |                | <i>Thalictrum aquilegifolium</i><br>Meadow Rue                         |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Purple                   | May-June                   | 2-3'/same     | Lacy, airy leaves. Flowers on raised stalks.  | 78S      |                    |
|                   |                | <i>Thalictrum fendleri</i><br>Meadow Rue                               |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Purple                   | May-June                   | 2-3'/same     | Leaves often mistaken for the native columbine.   | 78S      |                    |
|                   |                | <i>Thesperma</i> spp.<br>Showy Navajo Tea/Green Thread                 |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Yellow                   | August                     | 12"/same      | Thread-like leaves. Daisy-type flower.  | 1235A    |                    |
|                   |                | <i>Tridescanthia virginiana</i> , <i>T. occidentalis</i><br>Spiderwort |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Blue-purple              | Spring                     | 12-18"/same   | Grass-like leaves. Frequently goes dormant mid to late summer.  | 3D       |                    |
|                   |                | <i>Tridescanthia x andersoni</i> and cvs.<br>Spiderwort                |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Blue-purple              | June through July          | 12-18"/same   | Grass-like leaves. Frequently goes dormant mid to late summer.  | 3A       |                    |
|                   |                | <i>Tulipa</i> spp. and cvs.<br>Tulip                                   |                        |                         |             |                             |                        |                          |                             |                       | Flowers                |            | Varies                   | Varies                     | Varies        | Deer like to eat. Bloom varies, is either early spring or early summer.   | D        |                    |



| Water Requirement | Expanded Range | Botanical Name | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardness Zone | Tree / Shrub Equivalent | Plant Type | Exposure | Height / Width | Comments | Plant Schedule Key |
|-------------------|----------------|----------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------------------|-------------------------|------------|----------|----------------|----------|--------------------|
|-------------------|----------------|----------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------------------|-------------------------|------------|----------|----------------|----------|--------------------|

**GRASSES**

|  |  |   |  |  |  |  |  |  |  |     |                  |  |                 |   |         |
|--|--|---|--|--|--|--|--|--|--|-----|------------------|--|-----------------|---|---------|
|  |  | <i>Agropyron cristatum</i> and cvs.<br>Wheatgrass: Crested                    |  |  |  |  |  |  |  | 2   | Turf-type grass  |  | 18"-24"/same    | Coarse texture. Blue-green leaf color.  | 12345D  |
|  |  | <i>Agropyron smithii</i> and cvs.<br>Wheatgrass: Western                      |  |  |  |  |  |  |  | 2   | Turf-type grass  |  | 18-24"          | Extremely aggressive, especially with increased winter moisture. Can overgrow other plants quickly. Leaf blades are often bluish in color.          | 123456D |
|  |  | <i>Andropogon gerardii</i><br>Bluestem: Big                                   |  |  |  |  |  |  |  | 3   | Ornamental grass |  | 2-3'/same       | Fall color is rusty, as is seed head.   | 1235D   |
|  |  | <i>Bouteloua curtipendula</i> and cvs.<br>Grama: Sidecoats                    |  |  |  |  |  |  |  | 4   | Ornamental grass |  | 12-18' / 18-24" | Is tolerant of clay and alkaline soils. Fall color is raminish-rust.  | 1235D   |
|  |  | <i>Bouteloua gracilis</i><br>Grama: Blue                                      |  |  |  |  |  |  |  | 3   | Turf-type grass  |  | 12'/same        | Seed head is dark purple color. Fall color is rusty. Can be grown as ornamental or turf.  | 1235D   |
|  |  | <i>Bouteloua hirsuta</i><br>Grama: Hairy                                      |  |  |  |  |  |  |  | 5   | Ornamental grass |  | 12'/same        | Similar to <i>B. gracilis</i> .   | 123D    |
|  |  | <i>Buchloe dactyloides</i> and cvs.<br>Buffalo Grass                          |  |  |  |  |  |  |  | 4   | Turf-type grass  |  | Less than 6"    | Used as a turf substitute. Intolerant of traffic. Similar leaf texture as <i>Bouteloua gracilis</i> , and can be used together. Prefers clay soils. | 23D     |
|  |  | <i>Calamagrostis acutiflora</i> and cvs.<br>Feather Reed Grass                |  |  |  |  |  |  |  | 5   | Ornamental grass |  | 2-3'/same       | Fall color is golden. Upright habit.  | A       |
|  |  | <i>Calamovilfa longifolia</i><br>Prairie Sandreed                             |  |  |  |  |  |  |  | 2   | Ornamental grass |  | 3'/same         | Upright habit. Creamy-white fall color.   | 233D    |
|  |  | <i>Eragrostis trichodes</i><br>Sand Love Grass                                |  |  |  |  |  |  |  | 5   | Ornamental grass |  | 2-3'/same       | Fine texture, arching.  | 23D     |
|  |  | <i>Festuca arundinacea</i> and cvs., <i>F. rubra</i> and cvs.<br>Fescue: Tall |  |  |  |  |  |  |  | 3   | Turf-type grass  |  | to 3'           | Turf alternative to Kentucky Blue Grass. Potentially can use less water than Kentucky Blue Grass. Can be mowed.                                     | S       |
|  |  | <i>Festuca ovina glauca</i><br>Fescue: Blue                                   |  |  |  |  |  |  |  | 2/3 | Ornamental grass |  | 8-12'/same      | Blue leaves. Mounding habit. Re-seeds.  | 23568D  |

**LEGEND**

**Water Requirements**

- = dry 13" - 20"
- = adaptable 18" - 28"
- = steady 23" - 38"
- = wet > 36"

**Plant Community**

- = Native to Colorado Springs
- = Borrowed from similar regional plant community
- = Historically adapted introduced plant
- = Compatible with plant community
- = Other plants to try

**Exposure**

- = Sun
- = Part-Sun
- = Shade

**FOOTHILLS AND PLAINS PLAINS**

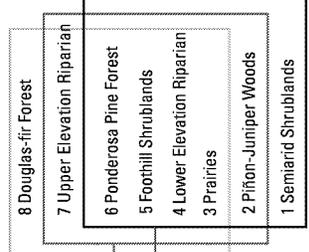
- 8 Douglas-fir Forest
- 7 Upper Elevation Riparian
- 6 Ponderosa Pine Forest
- 5 Foothill Shrublands
- 4 Lower Elevation Riparian
- 3 Prairies
- 2 Pinyon-Juniper Woods
- 1 Semiarid Shrublands

**GRASSES**

| Water Requirement | Expanded Range | Botanical Name<br>Common Name   | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | Tree / Shrub Equivalent | Plant Type | Exposure     | Height / Width  | Comments | Plant Schedule Key |
|-------------------|----------------|---|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|------------|--------------|---|----------|--------------------|
|                   |                | <i>Helictotrichon sempervirens</i><br>Blue Oat Grass                                |                        |                         |             |                             |                        |                          | 2                           | Y                     | Ornamental grass        |            | 3-4'/same    | Blue leaves. Arching habit.   | 1235D    |                    |
|                   |                | <i>Hilaria jamesii</i><br>Galleta   |                        |                         |             |                             |                        |                          | 4/5                         |                       | Ornamental grass        |            | 8-12'/12-18" | Spreading. Resembles <i>Bouteloua curtipendula</i> . Tolerant of clay and alkaline soils. Fall color is tannish-rust.                 | 1234D    |                    |
|                   |                | <i>Imperata cylindrica</i> and cvs.<br>Japanese Blood Grass                         |                        |                         |             |                             |                        |                          | 5                           |                       | Ornamental grass        |            | 6-12'/2-3'   | Red leaves. Upright, spreading habit.   | A        |                    |
|                   |                | <i>Koeleria pyramidata</i><br>Junegrass   |                        |                         |             |                             |                        |                          | 5                           |                       | Ornamental grass        |            | 2-3'/same    | Light tan fall color; seed head is retained throughout winter. Upright habit.   | 1236D    |                    |
|                   |                | <i>Lolium perenne</i> and cvs.<br>Perennial Ryegrass                                |                        |                         |             |                             |                        |                          | 5                           |                       | Turf-type grass         |            | to 3'        | Turf alternative to Kentucky Blue Grass, with similar texture. Potentially can use less water than Kentucky Blue Grass. Can be mowed. | S        |                    |
|                   |                | <i>Miscanthus sinensis</i> and cvs.<br>Eulalia Grass                                |                        |                         |             |                             |                        |                          | 4/5                         | Y                     | Ornamental grass        |            | 3-4'/same    | Many cultivars available. Needs to be cut back in spring.   | DA       |                    |
|                   |                | <i>Molinia caerulea</i><br>Moor Grass   |                        |                         |             |                             |                        |                          | 4                           |                       | Ornamental grass        |            | 2-3'/same    | Purplish-black inflorescence.   | 3A       |                    |
|                   |                | <i>Muhlenbergia montana</i><br>Mountain Muhly                                       |                        |                         |             |                             |                        |                          | 4                           |                       | Ornamental grass        |            | 18'/same     | Native where precipitation is over 17" annually. Fine texture. Blue-green fall color  | 23568A   |                    |
|                   |                | <i>Oryzopsis hymenoides</i><br>Indian Ricegrass                                     |                        |                         |             |                             |                        |                          | 4                           |                       | Ornamental grass        |            | 18-24'/same  | Fall color is rusty-gold. Hard to establish. Plant seeds 1.5" deep.   | 1235D    |                    |
|                   |                | <i>Panicum virgatum</i><br>Switch Grass   |                        |                         |             |                             |                        |                          | 4                           | Y                     | Ornamental grass        |            | 3-4'/same    | Good winter texture. Needs to be cut back in spring.  | 12346D   |                    |
|                   |                | <i>Pennisetum spp.</i><br>Fountain Grass  |                        |                         |             |                             |                        |                          | varies                      |                       | Ornamental grass        |            | varies       | Attractive flower spikes. Often used as an annual at higher elevations.   | A        |                    |
|                   |                | <i>Poa pratensis</i><br>Kentucky Blue Grass   |                        |                         |             |                             |                        |                          | 3                           |                       | Turf-type grass         |            | 12"          | Traffic-tolerant. Is more drought tolerant, and requires less water than is generally used. Can be mowed.                             | S        |                    |
|                   |                | <i>Schizachyrium scoparium</i><br>Bluestem: Little                                  |                        |                         |             |                             |                        |                          | 4                           |                       | Ornamental grass        |            | 18-24'/same  | A smaller version of <i>Andropogon gerardii</i> .   | 1235D    |                    |
|                   |                | <i>Sorghastrum nutans</i> (syn. <i>S. avenaceum</i> )<br>Indiangrass                |                        |                         |             |                             |                        |                          | 4                           |                       | Ornamental grass        |            | 2-3'/same    | Good rusty-gold fall color.   | 345D     |                    |
|                   |                | <i>Sporobolus cryptandrus</i> , <i>S. airoides</i><br>Sand Dropseed, Alkali Sacaton |                        |                         |             |                             |                        |                          | 3                           |                       | Ornamental grass        |            | 1-2'/same    | <i>S. airoides</i> is alkaline-tolerant. Performs better in areas east of I-25.   | 134D     |                    |
|                   |                | <i>Stipa comata</i><br>Needle and Thread Grass                                      |                        |                         |             |                             |                        |                          | 5                           | Y                     | Ornamental grass        |            | 2-3'/same    | Seed heads can lodge in pets' ears and coats.   | 123D     |                    |



| Water Requirement | Expanded Range | Botanical Name  | Common Name | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardness Zone | Plant Type   | Exposure | Flower Color                | Bloom Time              | Height / Width        | Comments  | Plant Schedule Key |
|-------------------|----------------|---|-------------|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|--------------------|--------------|----------|-----------------------------|-------------------------|-----------------------|---|--------------------|
| D                 |                | <i>Achillea tomentosa</i> and cvs.<br>Yarrow: Woolly                  |             | G                      |                         |             | G                           | G                      | G                        |                             |                       | 3                  | Ground Cover | S        | Yellow, cvs. are variegated | Mid-July – early August | 8-12' / same          | Gives interesting texture. Not as aggressive as some <i>Achillea</i> spp. | 156D               |
| S                 |                | <i>Aegopodium podagraria</i> and cvs.<br>Snow-on-the-Mountain         |             |                        |                         |             |                             |                        |                          |                             |                       | 4                  | Ground Cover | PS SH    | White                       | 6-12' / 3-4'            | 6-12' / 3-4'          | Foliage burns with too much sun and/or not enough water. Can be invasive. | S                  |
| S                 |                | <i>Ajuga reptans</i> and cvs.<br>Carpet Bugle, Ajuga                  |             |                        |                         |             | G                           |                        |                          |                             |                       | 3                  | Ground Cover | PS SH    | Bluish-purple               | 4-10' / 12-18"          | 4-10' / 12-18"        | Foliage is bronze or purple-colored. Spreading. Needs good drainage.      | 47S                |
| D                 |                | <i>Antennaria</i> spp.<br>Pussytoes                                   |             | N                      | N                       | N           | N                           | N                      |                          |                             |                       | 2                  | Ground Cover | S PS     | White, Whitish-pink         | June                    | 6-12' / 12-18"        | Silver foliage, fuzzy flowers. Does not like clay soil. Hybridize easily. | 123568D            |
| D                 |                | <i>Callirhoe involucrata</i><br>Mallow: Poppy                         |             | G                      | G                       |             |                             |                        |                          |                             |                       | 4                  | Ground Cover | S        | Pink                        | 6-8' / 36-48"           | 6-8' / 36-48"         | Flowers are cup-shaped.   | 123D               |
| D                 |                | <i>Cerastium tomentosum</i><br>Snow-in-Summer                         |             | G                      | G                       | G           | G                           | G                      |                          |                             |                       | 2                  | Ground Cover | S        | White                       | 6-10' / 24-36"          | 6-10' / 24-36"        | Gray-white foliage. Plants are mounded. Easily re-seeds.                  | 356D               |
| A                 |                | <i>Convallaria majalis</i><br>Lily-of-the-Valley                      |             | G                      | G                       |             |                             |                        |                          |                             |                       | 2                  | Ground Cover | PS SH    | White                       | 4-8' / 12-18"           | 4-8' / 12-18"         | Early, fragrant bloom, with orange fruit following. Spreading.            | 568A               |
| D                 |                | <i>Delosperma cooperi</i><br>Ice Plant: Purple                        |             |                        |                         |             |                             |                        |                          |                             |                       | 5                  | Ground Cover | S        | Pink                        | Less than 6' / 12-18"   | Less than 6' / 12-18" | Good flower color. Not as aggressive or as hardy as <i>D. nubigenum</i> . | D                  |
| D                 |                | <i>Delosperma nubigenum</i><br>Ice Plant: Hardy Yellow                |             | G                      | G                       | G           | G                           | G                      |                          |                             |                       | 4                  | Ground Cover | S        | Yellow                      | Less than 3' / 2-3'     | Less than 3' / 2-3'   | Only slightly aggressive at this elevation. Forms a dense mat.            | 123568D            |
| A                 |                | <i>Duchesnea indica</i><br>Strawberry: Mock                           |             |                        |                         |             |                             |                        |                          |                             |                       | 1                  | Ground Cover | S PS SH  | Yellow                      | Less than 6' / 12-18"   | Less than 6' / 12-18" | Looks similar to a strawberry.  | 678A               |
| A                 |                | <i>Fragaria vesca</i> (syn. <i>F. americana</i> )<br>Strawberry: Wild |             |                        |                         |             |                             |                        |                          |                             |                       | 2                  | Ground Cover | S PS SH  | White                       | 6-10' / 18-36"          | 6-10' / 18-36"        | Small edible fruit.   | 678A               |
| A                 |                | <i>Galium odoratum</i><br>Sweet Woodruff                              |             |                        |                         |             |                             |                        |                          |                             |                       | 4                  | Ground Cover | S PS SH  | White                       | 4-10' / 12-18"          | 4-10' / 12-18"        | Flowers are in clusters. Leaves and stems are fragrant.                   | A                  |



**Exposure**  
 = Sun  
 = Part-Sun  
 = Shade

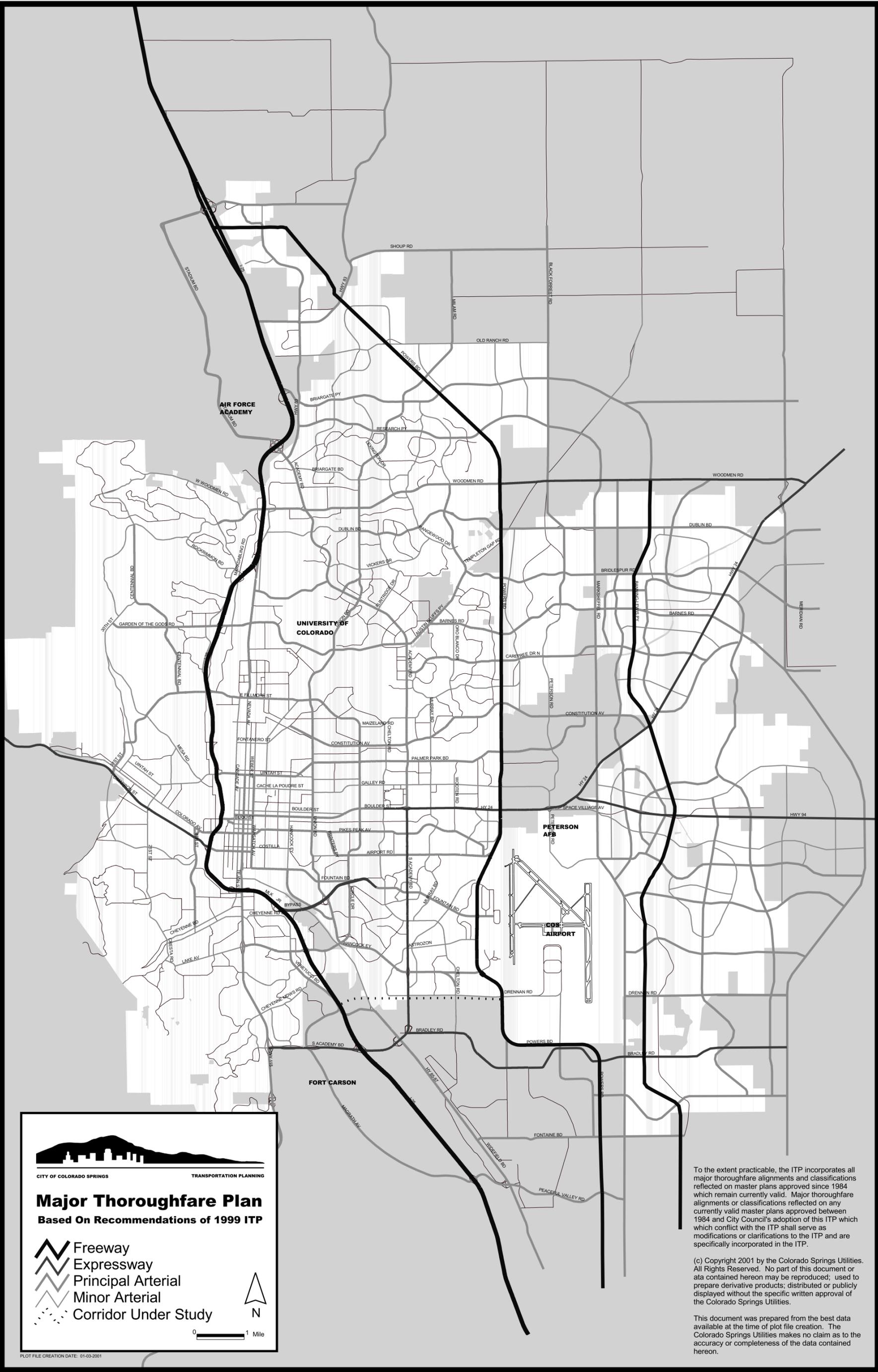
**Plant Community**  
 = Native to Colorado Springs  
 = Borrowed from similar regional plant community  
 = Historically adapted introduced plant  
 = Compatible with plant community  
 = Other plants to try

**Water Requirements**  
 = dry 13" - 20"  
 = adaptable 18" - 28"  
 = steady 23" - 38"  
 = wet > 36"

**LEGEND**

**GROUND COVERS**

| Water Requirement | Expanded Range | Botanical Name   | 1. Semiarid Shrublands | 2. Pinyon-Juniper Woods | 3. Prairies | 4. Lower Elevation Riparian | 5. Foothill Shrublands | 6. Ponderosa Pine Forest | 7. Upper Elevation Riparian | 8. Douglas-fir Forest | USDA Hardiness Zone | Plant Type   | Exposure | Flower Color      | Bloom Time            | Height / Width             | Comments   | Plant Schedule Key |
|-------------------|----------------|--|------------------------|-------------------------|-------------|-----------------------------|------------------------|--------------------------|-----------------------------|-----------------------|---------------------|--------------|----------|-------------------|-----------------------|----------------------------|--|--------------------|
| A                 |                | <i>Gypsophila repens</i> and cvs.<br>Baby's Breath: Creeping   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 3                   | Ground Cover | S PS     | Pink, White       | June – mid-July       | 4-8'/12-16"                | Needs good drainage.   | A                  |
| A                 |                | <i>Lysimachia nummularia</i><br>Moneywort  | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 4                   | Ground Cover | PS SH    | Yellow            | July                  | Less than 6'/18-24"        | Light green foliage.   | A                  |
| D                 |                | <i>Penstemon pinifolius</i><br>Penstemon: Pine-Leaf, Beard-Tongue  | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 4                   | Ground Cover | PS SH    | Orange-pink       | June – August         | 1-2'/same                  | Semi-evergreen. Flowers attract hummingbirds.  | 256D               |
| A                 |                | <i>Persicaria affinis</i> and cvs. (syn. <i>Polygonum affine</i> )<br>Fleceflower: Himalayan, Smartweed        | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 3                   | Ground Cover | S PS     | Pink              | June – September      | 6-12'/flower stalk 24-36"  | Leaves turn red in fall. Flowers in clusters along stalk.  | A                  |
| A                 |                | <i>Phlox subulata</i><br>Phlox: Creeping Phlox   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 3                   | Ground Cover | S PS     | Pink, White, Blue | Mid-April – June      | 4-8'/12-18"                | Evergreen (where protected) to semi-evergreen.   | A                  |
| A                 |                | <i>Potentilla tabernaemontani</i> 'Nana'<br>P. verna) Potentilla: Creeping                                     | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 4                   | Ground Cover | PS SH    | Yellow            | June – mid-October    | 1-3'/12-18"                | Foliage is reddish-purple in fall.   | 68A                |
| A                 |                | <i>Sedum spurium</i> and cvs., <i>S. kantschaticum</i> , <i>S. acre</i> and cvs. Sedum                         | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 3/4                 | Ground Cover | S PS     | Pink, Yellow      | Varies by sp. and cv. | Less than 6'/varies by sp. | Various sizes, leaf colors and textures available.   | 255AD              |
| D                 |                | <i>Sempervivum arachnoideum</i> and cvs.<br>Cobweb Houseleek, Hen & Chicks                                     | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 2                   | Ground Cover | S PS     | Pinkish-tan       | July – September      | 6-12'/flower stalk 18-24"  | Odd-looking flowers. Succulent evergreen.  | D                  |
| A                 |                | <i>Smilacina racemosa</i><br>False Solomonseal   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 2                   | Ground Cover | S PS     | White             | April – May           | 6-12'/12-24"               | Resembles <i>Convallaria majalis</i> . Fragrant.   | 678AD              |
| A                 |                | <i>Stachys byzantina</i> and cvs.<br>Lamb's Ear, Woolly Betony   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 4                   | Ground Cover | S PS     | Purple            | Mid-July – August     | 12-18'/flower stalk 18-24" | Flowers are relatively unimportant. Non-flowering cvs. available. Leaves are soft, fuzzy, silver-colored. Spreading. | AD                 |
| A                 |                | <i>Teucrium chamaedrys</i><br>Germander: Wall  | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 5                   | Ground Cover | S PS     | Purple            | July – September      | 12'/18-24"                 | Evergreen or semi-evergreen. Good fall foliage color. Often dies back to ground in higher elevations.                | A                  |
| A                 |                | <i>Thymus serpyllum</i> , <i>T. minus</i> , <i>T. praecox</i> , <i>T. pseudolanuginosus</i><br>Thyme: Creeping | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 3                   | Ground Cover | S PS     | Purple/pink       | Varies by sp.         | Less than 6'/varies by sp. | Useful between stepping stones. Flowers and leaves are fragrant.   | A                  |
| A                 |                | <i>Veronica repens</i> and cvs.<br>Veronica: Creeping, Speedwell   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 3                   | Ground Cover | S PS     | Varies            | Spring                | Less than 6'/6-12"         | Moss-like foliage. Small flower clusters.  | 4A                 |
| A                 |                | <i>Vinca minor</i><br>Periwinkle   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 4                   | Ground Cover | PS SH    | Blue-purple       | April – May           | Less than 6'/12-18"        | Evergreen to semi-evergreen. Dark green shiny leaves. Will tolerate sun, but prefers some shade.                     | A                  |
| A                 |                | <i>Waldsteinia ternata</i> , <i>W. fragarioides</i><br>Strawberry: Barren                                      | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 2                   | Ground Cover | S PS     | Yellow            | June                  | Less than 6'/8-12"         | Evergreen, strawberry-like plants.   | 678A               |
| A                 |                | <i>Zinnia grandiflora</i><br>Paper Flower, Wild Zinnia   | •                      | •                       | •           | •                           | •                      | •                        | •                           | •                     | 4                   | Ground Cover | S        | Yellow            | July – mid-October    | 6-12'/same                 | Only half hardy in higher elevations. Re-seeds easily.   | 123D               |



**CITY OF COLORADO SPRINGS** TRANSPORTATION PLANNING

**Major Thoroughfare Plan**  
Based On Recommendations of 1999 ITP

- Freeway
- Expressway
- Principal Arterial
- Minor Arterial
- Corridor Under Study

0 1 Mile

PLOT FILE CREATION DATE: 01-03-2001

To the extent practicable, the ITP incorporates all major thoroughfare alignments and classifications reflected on master plans approved since 1984 which remain currently valid. Major thoroughfare alignments or classifications reflected on any currently valid master plans approved between 1984 and City Council's adoption of this ITP which conflict with the ITP shall serve as modifications or clarifications to the ITP and are specifically incorporated in the ITP.

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This document was prepared from the best data available at the time of plot file creation. The Colorado Springs Utilities makes no claim as to the accuracy or completeness of the data contained hereon.

# Appendix E: Schematic Landscape Diagram

To be submitted in conformance with Policy 311. (See reverse side for example.)

Name of project: \_\_\_\_\_ Date: \_\_\_\_\_

Climate zone (from Figure 4 of Landscape Policy Manual) - *circle one*:

Foothills

Foothills & Plains

Plains

## Plant Communities

- to be labeled by number(s) on diagram:

- 1 — Semiarid Shrublands
- 2 — Pinon-Juniper Woodlands
- 3 — Prairie
- 4 — Lower Elevation Riparian
- 5 — Foothill Shrublands
- 6 — Ponderosa Pine Forest
- 7 — Upper Elevation Riparian
- 8 — Douglas-fir Forest

## Hydrozones (supplemental water)

- to be labeled by letter(s) on diagram:

- V** - Very Low (0 to 7 inches per year)
- L** - Low (7 to 15 inches per year)
- M** - Moderate (15 to 25 inches per year)
- H** - High (more than 25 inches per year)

# Appendix E: Schematic Landscape Diagram

To be submitted in conformance with Policy 311. (See reverse side for example.)

Name of project: Peak Office Bldg. Date: 11-3-98

Climate zone (from Figure 4 of Landscape Policy Manual) - *circle one*:

Foothills      Foothills & Plains      Plains

**Plant Communities**

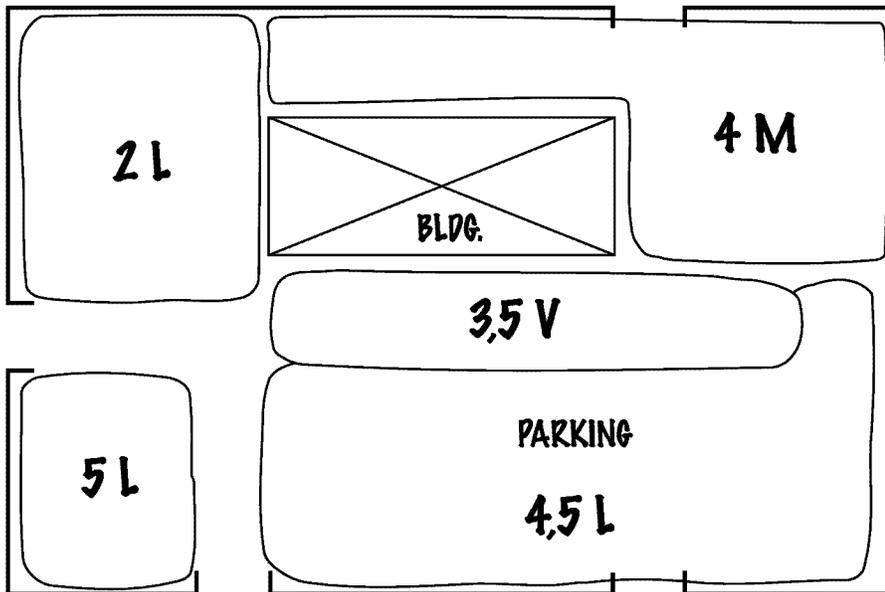
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- 4 — Lower Elevation Riparian
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**Hydrozones (supplemental water)**

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- M - Moderate (15 to 25 inches per year)
- H - High (more than 25 inches per year)



# Appendix F: Site Category Calculation Formats

(Required by Policy 312)

## Landscape Setbacks (or Double Frontage Lot Streetscapes) See Code Section/Policy 320 & 317

| STREET NAME OR ZONE BOUNDARY (ELEV.) | STREET CLASSIFICATION | WIDTH (IN FT.) REQ./ PROV. | LINEAR FOOTAGE | TREE/FEET REQUIRED | NO. OF TREES REQ./ PROVIDED |
|--------------------------------------|-----------------------|----------------------------|----------------|--------------------|-----------------------------|
|--------------------------------------|-----------------------|----------------------------|----------------|--------------------|-----------------------------|

EXAMPLE:

|                    |                |           |      |       |                 |
|--------------------|----------------|-----------|------|-------|-----------------|
| Jones Drive        | Minor Arterial | 20' / 20' | 284' | 1/25' | 12 / 9 + shrubs |
| West Zone Boundary | —              | —         | 273' | 1/30' | 10 / 9 + shrubs |

| SHRUB SUBSTITUTES REQUIRED / PROVIDED | ORNAMENTAL GRASS SUB. REQUIRED / PROVIDED | SETBACK PLANT ABBR. DENOTED ON PLAN* | PERCENT GROUND PLANE VEG. REQ. / PROVIDED |
|---------------------------------------|---|--------------------------------------|---|
|---------------------------------------|---|--------------------------------------|---|

|                      |         |                    |           |
|----------------------|---------|--------------------|-----------|
| 30 / 20 + orn. grass | 20 / 20 | JS (Jones Setback) | 75% / 75% |
| 10 / 10              | —       | WB (West Boundary) | 75% / 85% |

## Motor Vehicle Lots See Code Section/Policy 321 & 317

| NO. OF VEHICLE SPACES PROVIDED | SHADE TREES (1/15 SPACES) REQUIRED / PROVIDED | VEHICLE LOT FRONTAGE(S) | LENGTH OF FRONTAGE (FT.) (EXCLUDING DRIVEWAYS) | 2/3 LENGTH OF FRONTAGE (FT.) |
|--------------------------------|---|-------------------------|--|------------------------------|
|--------------------------------|---|-------------------------|--|------------------------------|

EXAMPLE:

|     |         |                          |                    |                   |
|-----|---------|--------------------------|--------------------|-------------------|
| 205 | 14 / 14 | Smith Drive<br>East Side | 262 ft.<br>120 ft. | 175 ft.<br>80 ft. |
|-----|---------|--------------------------|--------------------|-------------------|

| MIN. 3' SCREENING PLANTS REQ./PROV. | EVERGREEN PLANTS REQ.(50%) / PROV. | LENGTH OF SCREENING WALL OR BERM PROVIDED | VEHICLE LOT PLANT ABBR. ON PLAN* | PERCENT GROUND PLANE EG. REQ. / PROVIDED |
|-------------------------------------|------------------------------------|---|----------------------------------|--|
|-------------------------------------|------------------------------------|---|----------------------------------|--|

|                |         |                    |   |           |
|----------------|---------|--------------------|---|-----------|
| 35 / 25 + wall | 13 / 15 | 50' of screen wall | V | 75% / 80% |
| 16 / 16        | 8 / 16  | —                  | V |           |

## Internal Landscaping See Code Section/Policy 322 & 317

| NET SITE AREA (SF) (LESS PUBLIC R.O.W) | PERCENT MINIMUM INTERNAL AREA (%) | INTERNAL AREA (SF) REQUIRED / PROVIDED | INTERNAL TREES (1/500 SF) REQUIRED / PROVIDED |
|--|-----------------------------------|--|---|
|--|-----------------------------------|--|---|

EXAMPLE:

|           |            |                   |                |
|-----------|------------|-------------------|----------------|
| 77,532 SF | Nonres. 5% | 3877 SF / 4841 SF | 8 / 3 + shrubs |
|-----------|------------|-------------------|----------------|

| SHRUB SUBSTITUTES REQUIRED / PROVIDED | ORNAMENTAL GRASS SUB. REQUIRED / PROVIDED | INTERNAL PLANT ABBR. DENOTED ON PLAN* | PERCENT GROUND PLANE VEG. REQ. / PROVIDED |
|---------------------------------------|---|---------------------------------------|---|
|---------------------------------------|---|---------------------------------------|---|

|                      |         |   |           |
|----------------------|---------|---|-----------|
| 50 / 40 + orn. grass | 20 / 20 | I | 75% / 90% |
|----------------------|---------|---|-----------|

## Landscape Buffers & Screens See Code Section/Policy 323 & 317

| STREET NAME OR PROPERTY LINE (ELEV.) | WIDTH (IN FT.) REQ./ PROV. | LINEAR FOOTAGE | BUFFER TREES (1/20') REQUIRED / PROVIDED | EVERGREEN TREES REQ.(50%) / PROVIDED |
|--------------------------------------|----------------------------|----------------|--|--------------------------------------|
|--------------------------------------|----------------------------|----------------|--|--------------------------------------|

EXAMPLE:

|                     |           |      |         |       |
|---------------------|-----------|------|---------|-------|
| South Property Line | 15' / 15' | 205' | 11 / 11 | 6 / 6 |
|---------------------|-----------|------|---------|-------|

| LENGTH OF 6 FT. OPAQUE STRUCTURE REQ. / PROV. | BUFFER TREE ABBR. DENOTED ON PLAN* | PERCENT GROUND PLANE VEG. REQ. / PROVIDED |
|---|------------------------------------|---|
|---|------------------------------------|---|

|             |                   |           |
|-------------|-------------------|-----------|
| 205' / 190' | SB (South Buffer) | 75% / 75% |
|-------------|-------------------|-----------|

(-15' for driveway visibility)

\* Note existing trees to remain.

# Appendix G : Plant Schedule Format

(Required by Policy 312)

| SYMBOL | ABBR.* | QTY. | BOTANICAL NAME | COMMON NAME | KEY FROM APPENDIX B | MATURE WIDTH | PLANTING SIZE | NOTES |
|--------|--------|------|----------------|-------------|---------------------|--------------|---------------|-------|
|--------|--------|------|----------------|-------------|---------------------|--------------|---------------|-------|

TREES:

|    |  |   |                         |                  |       |        |           |     |
|----|--|---|-------------------------|------------------|-------|--------|-----------|-----|
| Ag |  | 4 | Acer ginnala            | Amur Maple       | 4578A | 15-20' | 1" cal.   | B&B |
| Qm |  | 6 | Quercus macrocarpa      | Bur Oak          | 4DA   | 40-60' | 1.5" cal. | B&B |
| Kp |  | 5 | Koelreuteria paniculata | Golden Rain Tree | S     | 30-40' | 1.5" cal. | B&B |
| Pn |  | 5 | Pinus nigra             | Austrian Pine    | 2678A | 10-20' | 6' ht.    | B&B |

Percent Signature Trees\*\*:  
(60% minimum - Policy 311.3.K)

Signature Trees: 15  
Total No. of Trees: 20 = 75% Signature Trees

SHRUBS:

|    |  |   |                         |                       |       |       |        |       |
|----|--|---|-------------------------|-----------------------|-------|-------|--------|-------|
| Aa |  | 8 | Amelanchier alnifolia   | Western Serviceberry  | 257DA | 6-12' | 5 gal. | Cont. |
| Am |  | 6 | Aronia melanocarpa      | Black Chokeberry      | 457A  | 6-12' | 5 gal. | Cont. |
| Ca |  | 5 | Cornus alterniflora     | Pagoda Dogwood        | S     | 6-8'  | 5 gal. | Cont. |
| Cd |  | 9 | Cotoneaster divaricatus | Spreading Cotoneaster | 2345A | 6-12' | 5 gal. | Cont. |

Percent Signature Shrubs\*\*:  
(60% minimum - Policy 311.3.K)

Signature Shrubs: 23  
Total No. of Shrubs: 28 = 82% Signature Shrubs

ORNAMENTAL GRASSES:

|     |  |    |                          |                    |      |      |        |       |
|-----|--|----|--------------------------|--------------------|------|------|--------|-------|
| Ang |  | 20 | Andropogon gerardi       | Big Bluestem       | 123D | 2-3' | 1 gal. | Cont. |
| Caa |  | 10 | Calamagrostis acutiflora | Feather Reed Grass | D    | 2-3' | 1 gal. | Cont. |

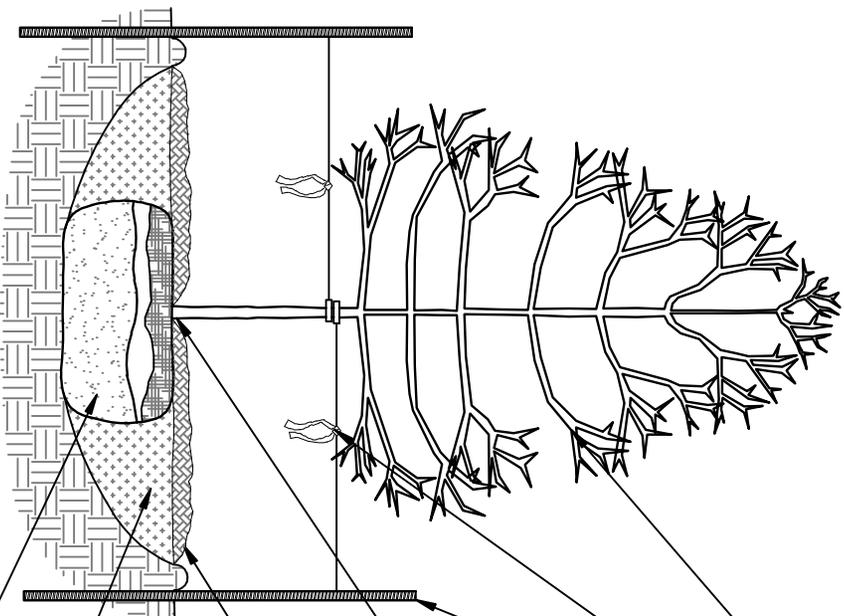
Percent Signature Grasses\*\*:  
(if substituted for shrubs @ 2 for 1)

Signature Grasses: 10  
Total No. of Grasses: 15 = 67% Signature Grasses

\* Species abbreviations determined by designer.

\*\* Classified as N, B, H or C in Appendix B, Selected Plants for Colorado Springs

- NOTES:**
1. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
  2. AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES. CROSS OVER BRANCHES, AND WEAK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
  3. STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
  4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
  5. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
  6. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
  7. WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE.
  8. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
  9. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



REMOVE TWINE FROM BRANCHES ON TREES TIED UP FOR SHIPPING. SPRAY WITH WILT PRUF OR EQUAL (IF LEAFED OUT).

ORANGE FLUORESCENT FLAGGING ON WIRE FOR SAFETY.

SET TREE VERTICAL, STAKE UP TO 3" CALIPER TREES WITH TWO POSTS ON THE LEeward AND WINDWARD SIDES. STAKE TREES OVER 3" CALIPER WITH 3 EVENLY SPACED POSTS. USE NYLON STRAP WITH GROMMETS BELOW MID-POINT OF TREE. TIGHTEN #10 GUY WIRE BY TWISTING. PROTECT BRANCHES FROM TOUCHING WIRE. ALLOW A SLIGHT SAG FOR SWAY. PROVIDE FLAGGING TAPE WITH MINIMUM 6" DANGLING. SET STAKES IN MINIMUM 18" FIRM SOIL. REMOVE STAKES WITHIN 12-18 MONTHS OF PLANTING.

TRUNK FLARE MUST BE VISIBLE AT TOP OF ROOTBALL. POSITION ROOT FLARE AT GRADE.

3-4" DEPTH OF SPECIFIED MULCH. PROVIDE A 6" DIAMETER WOOD MULCH RING AND 6" PLANTING RIM FOR TREES IN DRYLAND PLANTING BEDS AND IN IRRIGATED NATIVE SEED AREAS WHERE IRRIGATION ZONES ARE TO BE SHUT DOWN AFTER ESTABLISHMENT. PROVIDE SAUCER ON DOWNHILL SIDE ON SLOPES. KEEP MULCH AWAY FROM CONTACT WITH WOODY TRUNK. DO NOT PLACE FABRIC UNDER MULCH. NO RIM FOR TREES LOCATED IN TURF AREAS.

SCARIFY SIDES OF PLANTING PNT. BACKFILL WITH AMENDED SOIL MIX. ROOTBALL SHALL REST ON FIRM, UNDISTURBED SOIL.

AFTER TREE IS POSITIONED, REMOVE ALL TWINE, ROPE, PLASTIC, WIRE, BURLAP, AND RUBBER.



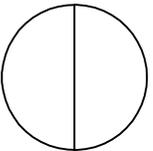
Rev: 11.13.08

Disclaimer: These planting details are for City review and approval process only and shall not be used for construction or bidding purposes.

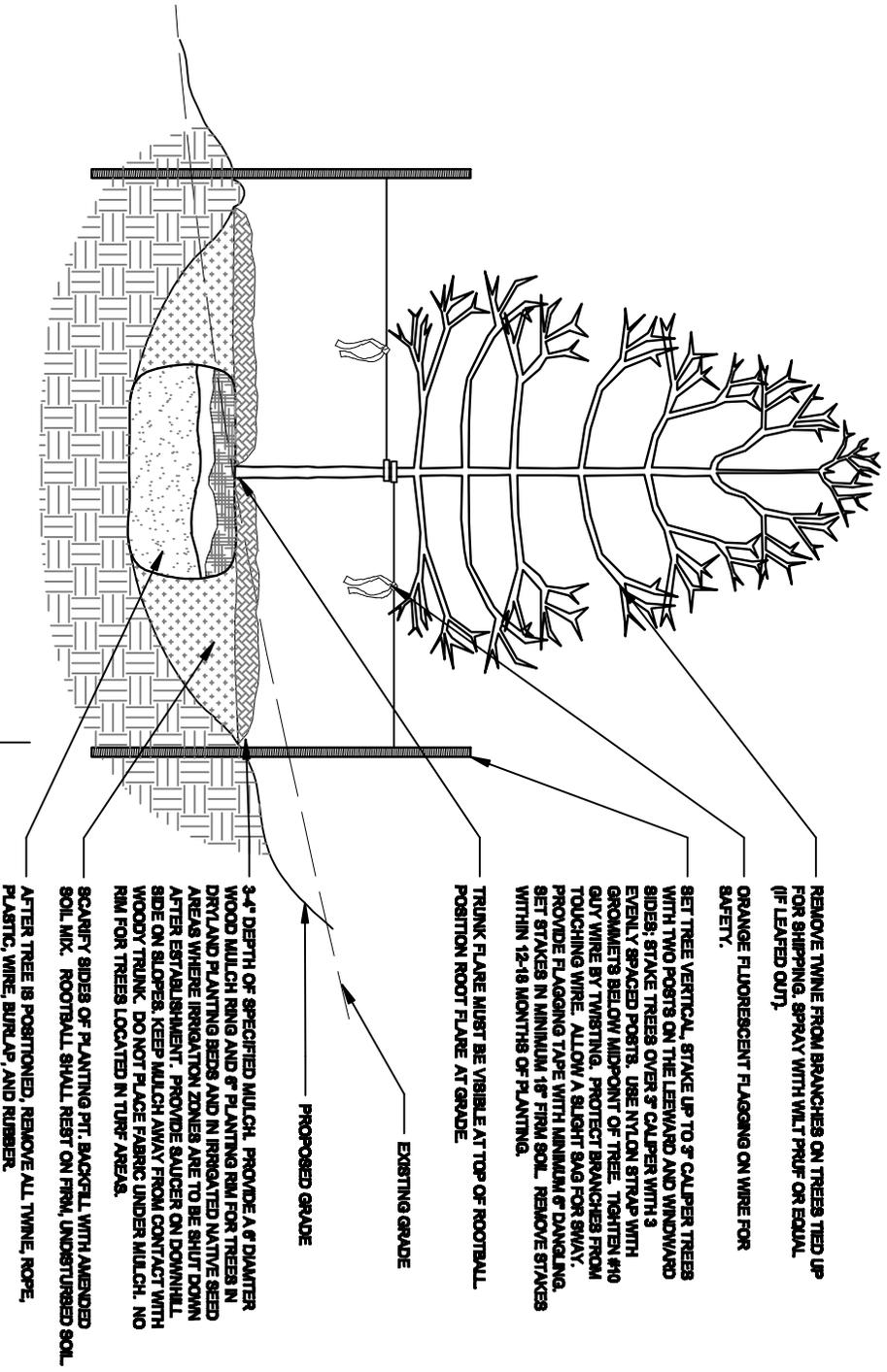
## DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

SECTION



- NOTES:**
1. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
  2. AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES, CROSS OVER BRANCHES, AND WEAK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
  3. STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
  4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
  5. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
  6. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
  7. WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE.
  8. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
  9. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



3-4" DEPTH OF SPECIFIED MULCH. PROVIDE A 6" DIAMETER WOOD MULCH RING AND 6" PLANTING RIM FOR TREES IN DRYLAND PLANTING BEDS AND IN IRRIGATED NATIVE SEED AREAS WHERE IRRIGATION ZONES ARE TO BE SHUT DOWN AFTER ESTABLISHMENT. PROVIDE SAUCER ON DOWNHILL SIDE ON SLOPES. KEEP MULCH AWAY FROM CONTACT WITH WOODY TRUNK. DO NOT PLACE FABRIC UNDER MULCH. NO RIM FOR TREES LOCATED IN TURF AREAS.

SCARIFY SIDES OF PLANTING PNT. BACKFILL WITH AMENDED SOIL MIX. ROOTBALL SHALL REST ON FIRM, UNDISTURBED SOIL. AFTER TREE IS POSITIONED, REMOVE ALL TWINE, ROPE, PLASTIC, WIRE, BURLAP, AND RUBBER.



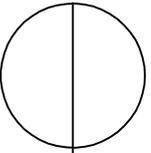
Rev: 11.13.08

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## DECIDUOUS TREE PLANTING ON SLOPES DETAIL

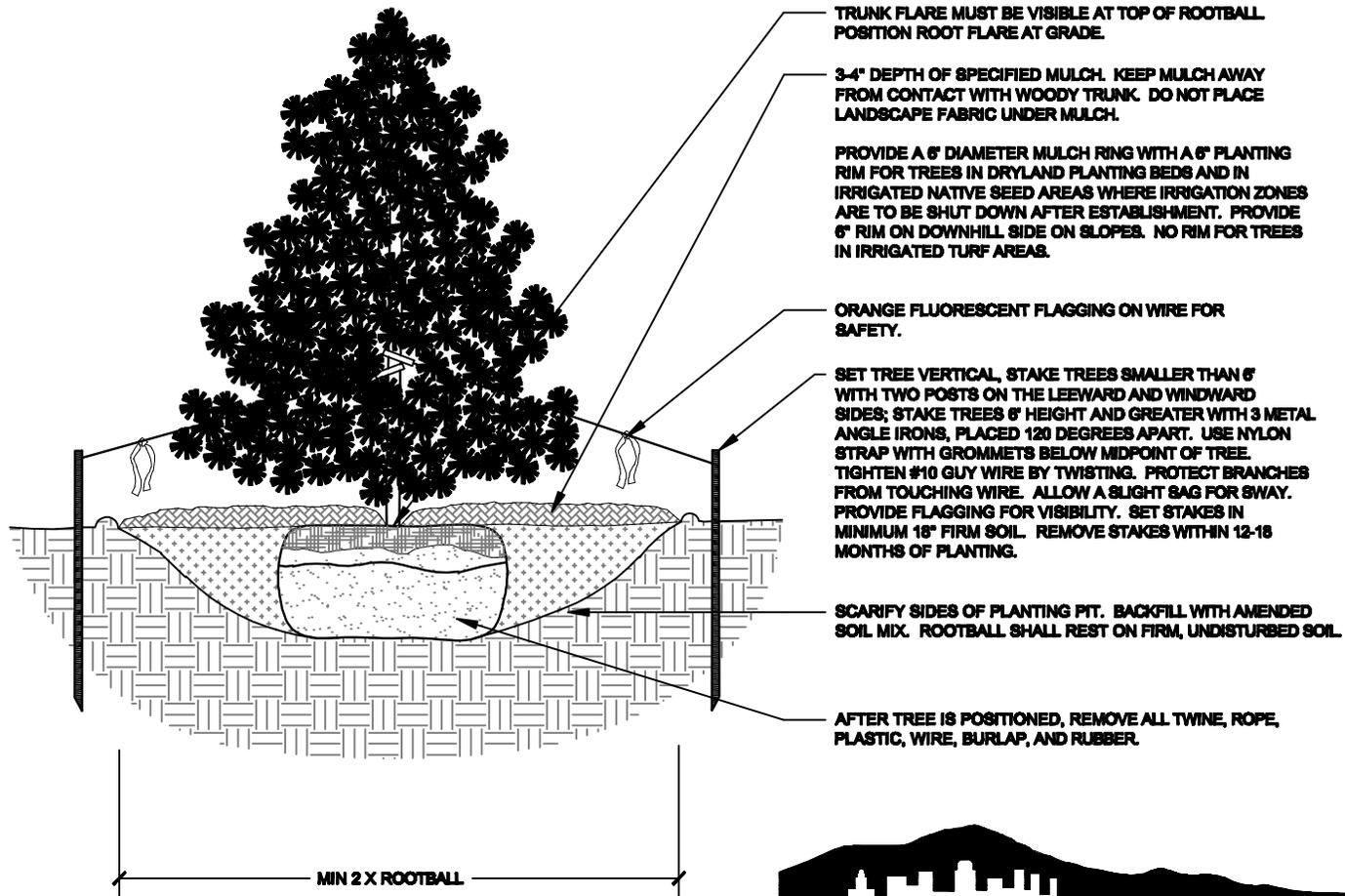
NOT TO SCALE

SECTION



**NOTES:**

1. DO NOT REMOVE OR CUT LEADER.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS

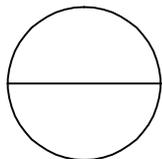
Rev: 11.13.08

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**EVERGREEN TREE PLANTING DETAIL**

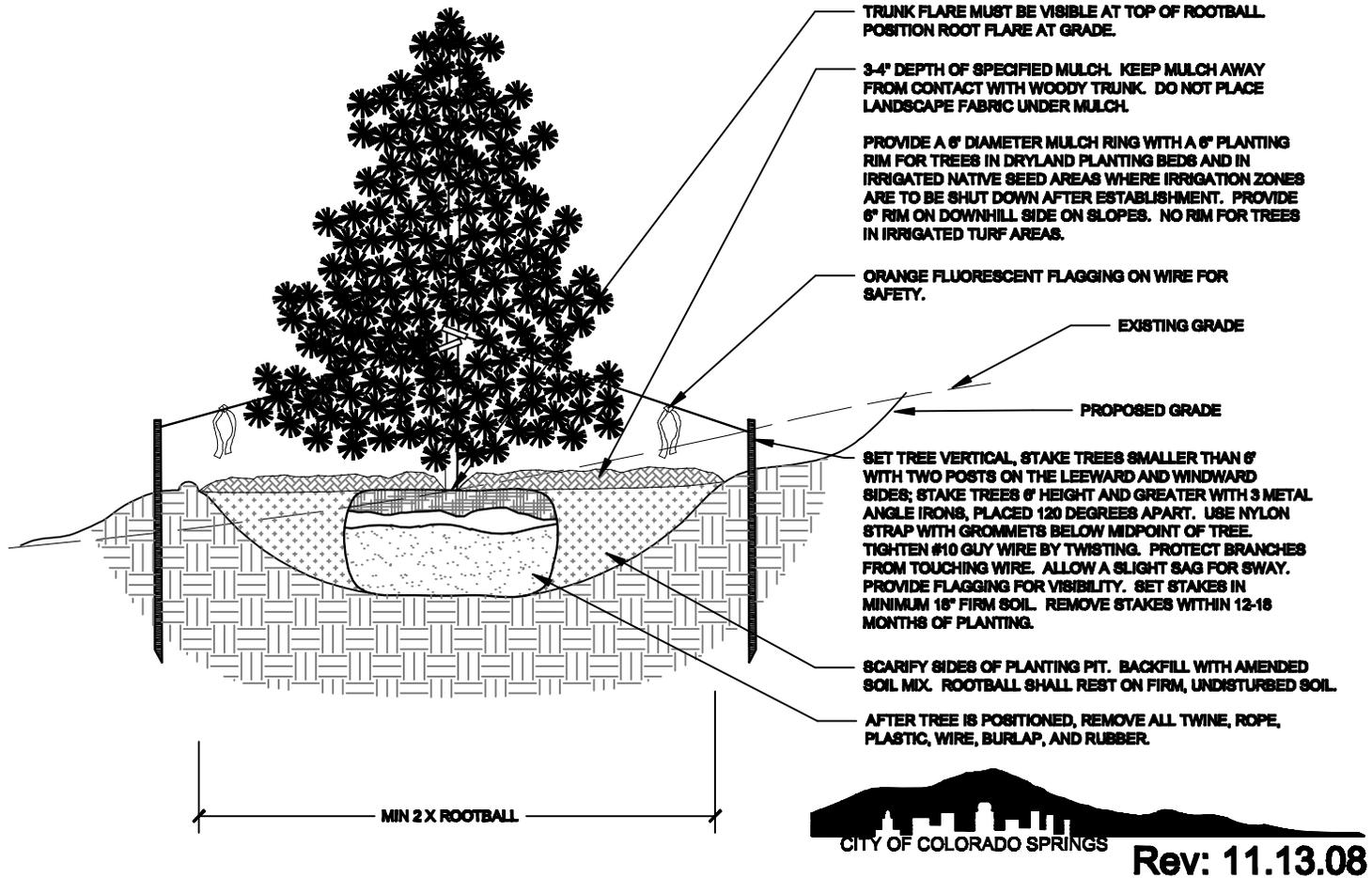
**NOT TO SCALE**

**SECTION**



**NOTES:**

1. DO NOT REMOVE OR CUT LEADER.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.

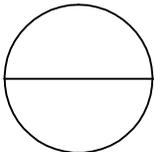


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**EVERGREEN TREE PLANTING ON SLOPES DETAIL**

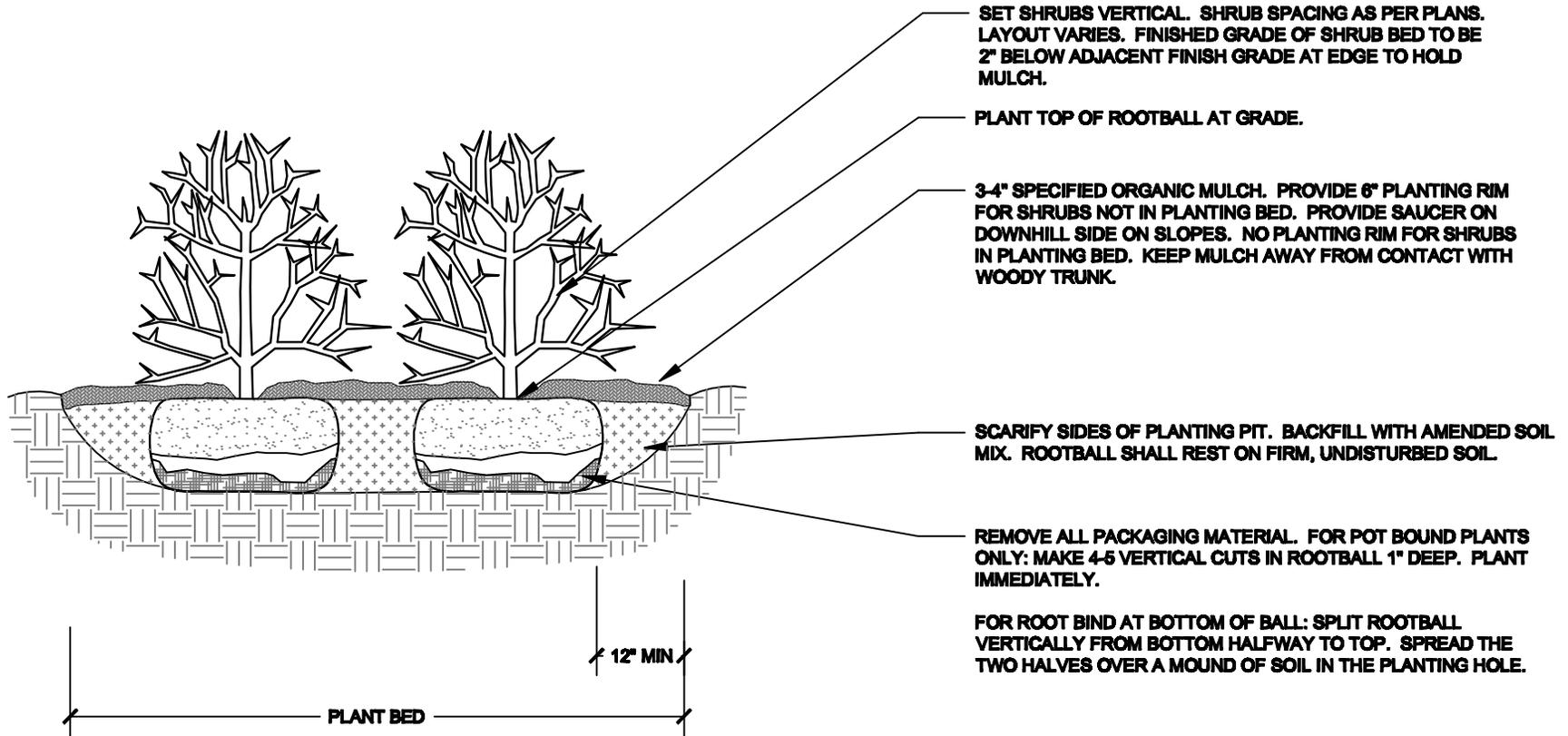
**NOT TO SCALE**

**SECTION**



**NOTES:**

- 1. PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
- 2. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
- 3. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
- 4. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
- 5. ALL SHRUBS IN ROCK AREAS TO RECEIVE SHREDDED MULCH RINGS.
- 6. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS

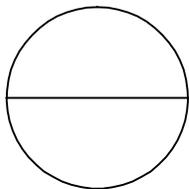
Rev: 11.13.08

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# SHRUB PLANTING DETAIL

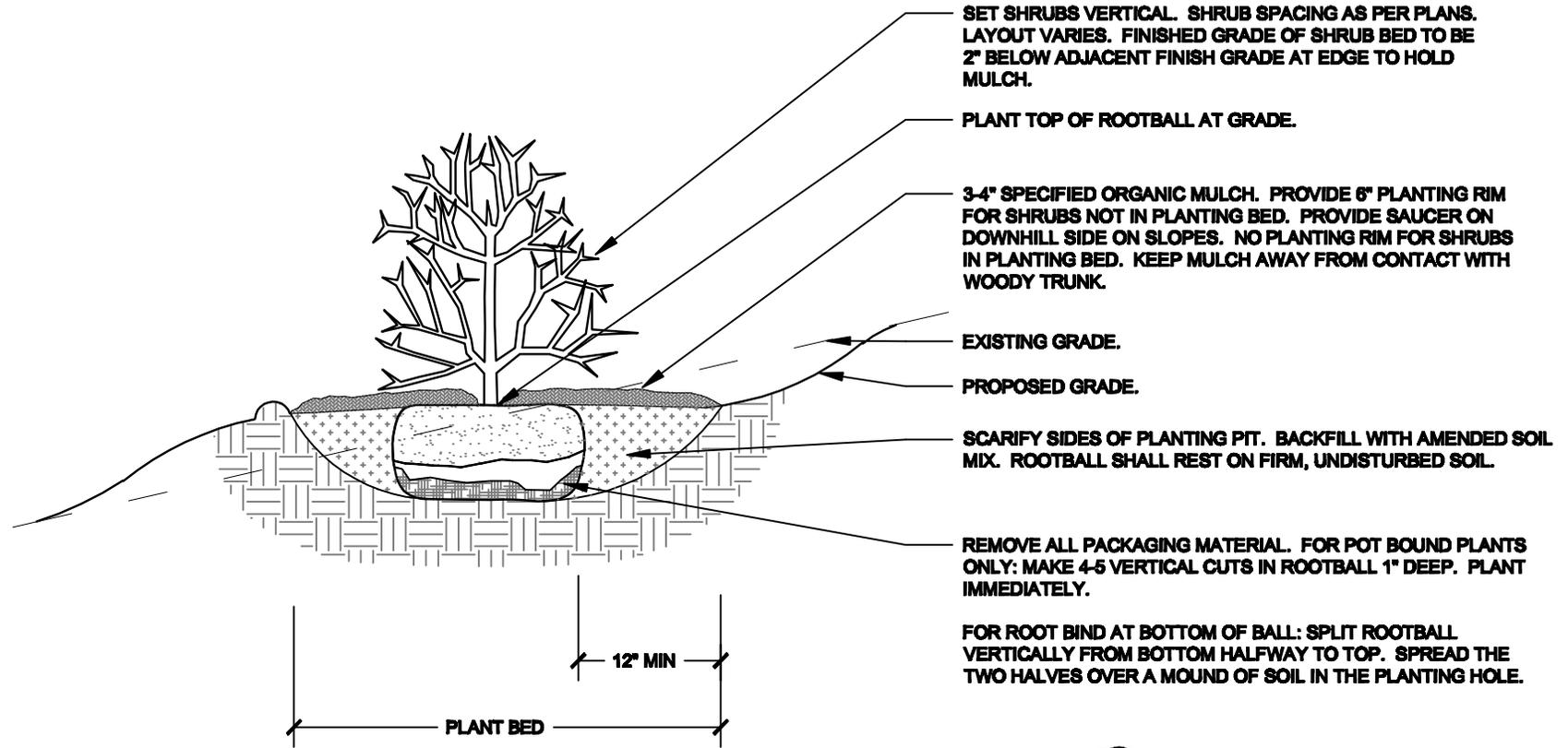
NOT TO SCALE

SECTION



**NOTES:**

1. PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
2. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
3. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
4. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
5. ALL SHRUBS IN ROCK AREAS TO RECEIVE SHREDDED MULCH RINGS.
6. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



CITY OF COLORADO SPRINGS

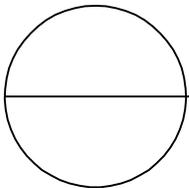
Rev: 11.13.08

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## SHRUB PLANTING ON SLOPES DETAIL

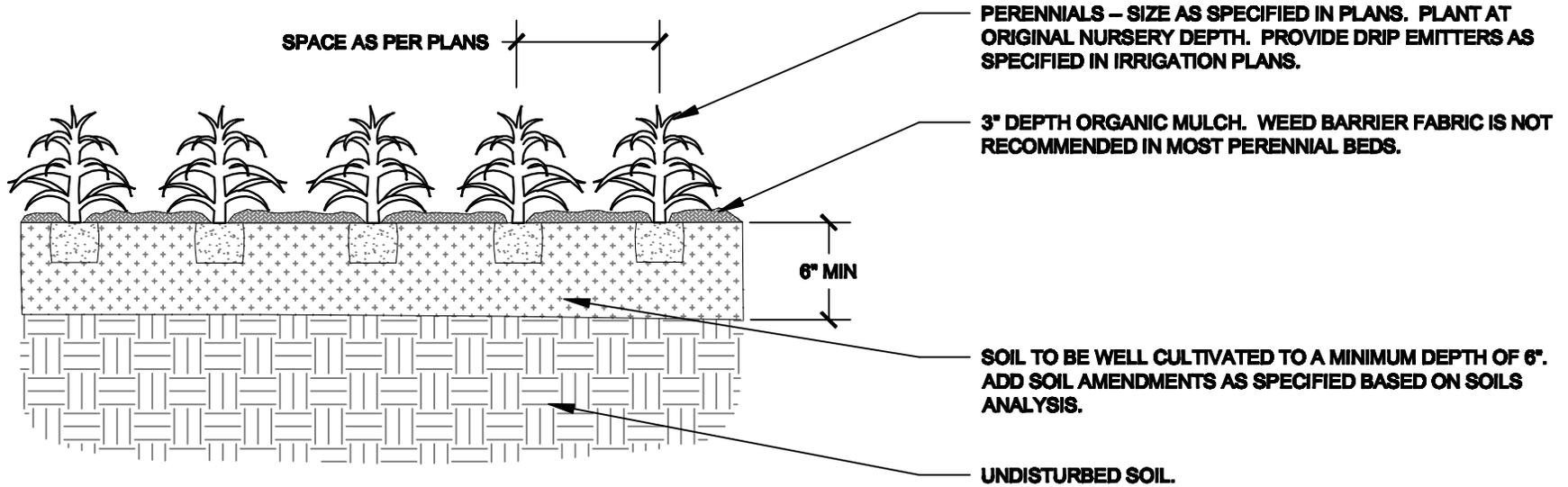
NOT TO SCALE

SECTION



**NOTES:**

1. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
2. PLANT GROUND COVERS AND PERENNIALS LEVEL AND AT GRADE.
3. PRUNE ALL DEAD OR BROKEN PARTS PRIOR TO PLANTING.
4. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
5. ALL PERENNIALS PLANTED IN ROCK MULCH AREAS TO HAVE ORGANIC MULCH RINGS AROUND THE BASE OF THE PLANT.



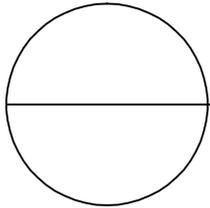
Rev: 11.13.08

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## PERENNIAL/GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

SECTION



# Appendix I: Certification of Professional Qualifications

(To be submitted in conformance with Policies 312, 313 and 314)

I, \_\_\_\_\_, hereby certify that I am qualified to prepare the type plan(s) indicated below based on the qualifications (denoted as "Yes") circled and verified below.

Note: Only one qualification (circled Yes) is needed to prepare a specific type of plan.

**PROFESSIONAL QUALIFICATION POSSESSED:**

**TYPE PLAN QUALIFIED TO PREPARE:**

|   | Landscape Plan* | Landscape Grading Plan* | Irrigation Plan** |
|---|-----------------|-------------------------|-------------------|
| 1. Licensed Landscape Architect   | Yes             | Yes                     | Yes               |
| 2. Full Member of American Society of Landscape Architects (ASLA)                                   | Yes             | Yes                     | Yes               |
| 3. Bachelor or higher degree in Landscape Architecture or Landscape Design                          | Yes             | Yes                     | No                |
| 4. Associate Member (except Student Associate) of ASLA or bachelor or higher degree in Horticulture | Yes             | No                      | No                |
| 5. Registered Professional Engineer   | No              | Yes                     | Yes               |
| 6. Licensed Architect   | No              | Yes                     | No                |
| 7. Bachelor or higher degree in Agricultural Engineering  | No              | No                      | Yes               |
| 8. Bachelor or higher degree in Civil Engineering   | No              | Yes                     | No                |
| 9. Certified Irrigation Designer certified by The Irrigation Association                            | No              | No                      | Yes               |
| 10. City Recognized Qualified Designer – Landscape  | Yes             | No                      | No                |
| 11. City Recognized Qualified Designer – Irrigation   | No              | No                      | Yes               |

**REQUIRED VERIFICATION INFORMATION:**

For  Licensed Landscape Architect,  Architect, or  Registered Professional Engineer, check and indicate:

State \_\_\_\_\_, License or Registration No. \_\_\_\_\_,

State Agency Phone No. for verification (\_\_\_\_)\_\_\_\_\_.

For  Full or  Associate (except Student Associate) Member of American Society of Landscape Architects at (202) 898-2444, check one.

For  Bachelor or higher degree in  Landscape Architecture,  Landscape Design,  Horticulture,  Agricultural Engineering, or  Civil Engineering, check and indicate:

Degree \_\_\_\_\_ Year \_\_\_\_\_, School \_\_\_\_\_,

Registrar Phone No.(\_\_\_\_)\_\_\_\_\_.

For  Certified Irrigation Designer certified by The Irrigation Association at (703) 573-3551, check and indicate year of certification \_\_\_\_\_.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone No.(\_\_\_\_)\_\_\_\_\_

# Appendix J: Landscape Inspection Affidavit

(To be submitted in conformance with Code Section 309.C)

Landscape Plan File No. \_\_\_\_\_ Name of Project \_\_\_\_\_  
 Landscape Plan Designer \_\_\_\_\_ Inspector \_\_\_\_\_  
 Date(s) of Inspection \_\_\_\_\_

This project was inspected, within the limits of customary access, for compliance with the approved landscape plan on file in City Planning. The findings are as follows:

|  | (Check one)              | Yes | No                       | N/A                      |
|--|--------------------------|-----|--------------------------|--------------------------|
| <b>Plant Material:</b>   |                          |     |                          |                          |
| 1. Condition of plant material is healthy and meets Colorado Nursery Act and American Standard of Nursery Stock standards. | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| 2. Installation is in conformance with Appendix H, Planting Details, of Landscape Policy Manual.                           | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| 3. All plant material installed as specified by species.   | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| 4. All plant material installed as specified by size.  | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| 5. All plant material installed as specified by quantity.  | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| 6. Location of all plant material is correct.  | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| 7. Specific observations attached if needed.   | <input type="checkbox"/> |     | <input type="checkbox"/> |                          |
| <b>Landscape Elements:</b>   |                          |     |                          |                          |
| 1. Soil prepared and amended as specified.   | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Compacted soil in vehicle lot planting areas tilled or replaced to a depth of 30 inches.                                | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Berms installed at height and slope specified.  | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Areas of slope protection installed as specified.   | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Reclamation & erosion control measures installed as specified.  | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Grading and drainage intent followed as specified.  | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Landscape components (internal walks, screening walls/fences, trash enclosures, etc.) installed as specified.           | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Mulch installed at depth and type specified:  |                          |     |                          |                          |
| A. Organic mulch   | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Inorganic mulch   | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Ground plane seeding installed as specified.*   | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Specific observations attached if needed.  | <input type="checkbox"/> |     | <input type="checkbox"/> | <input type="checkbox"/> |

I hereby certify that I am qualified to submit this landscape inspection affidavit based on the qualification indicated below: (check one)

Licensed Landscape Architect — indicate: State \_\_\_\_\_, License No. \_\_\_\_\_, State Agency Phone No. \_\_\_\_\_  
 for verification ( \_\_\_\_\_ ) \_\_\_\_\_.

Full or  Associate (except Student Associate) Member of American Society of Landscape Architects at (202) 898-2444.

Bachelor or higher degree in  Landscape Architecture,  Landscape Design,  Horticulture — indicate:  
 Degree \_\_\_\_\_ Year \_\_\_\_\_ School \_\_\_\_\_  
 Registrar Phone No. for verification ( \_\_\_\_\_ ) \_\_\_\_\_.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone No. ( \_\_\_\_\_ ) \_\_\_\_\_

\* Note: Seeding must be established or financially assured prior to issuance of a Certificate of Occupancy.

# Appendix K: Irrigation Inspection Affidavit

(To be submitted in conformance with Code Section 309.C)

Irrigation Plan File No. \_\_\_\_\_ Name of Project \_\_\_\_\_  
 Irrigation Plan Designer \_\_\_\_\_ Inspector \_\_\_\_\_  
 Date(s) of Inspection \_\_\_\_\_

This project was inspected, within the limits of customary access, for compliance with the approved irrigation plan on file in City Planning. At least two inspections were conducted. The findings are as follows:

|  | (Check one) | Yes                      | No                       |
|--|-------------|--------------------------|--------------------------|
| A. Inspection during construction to check main line in open trench:                                   |             |                          |                          |
| 1. Location of main line conforms to as-built plan.  |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Size of main line conforms to plan.   |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Depth of main line conforms to plan.  |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Main line condition is undamaged.   |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Main line pressure tested with water and meter to check for visible leaks.                          |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Specific observations attached if needed.   |             | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Inspection after completion of system installation, prior to seeding or sodding:                    |             |                          |                          |
| 1. Settling along trenches is absent.  |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. System components (i.e., controller, backflow preventer, rain sensor, etc.) installed as specified. |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Rotary heads pressure tested.   |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. System activated for observation of compliance.   |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Landscape components are not blocking application.  |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Each station complies with design / as-built plan.  |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Matched precipitation rates provided by zone.   |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. As-built plan provided to owner.  |             | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Specific observations attached if needed.   |             | <input type="checkbox"/> | <input type="checkbox"/> |

I hereby certify that I am qualified to submit this irrigation inspection affidavit based on the qualification indicated below:  
 (check one)

- Licensed Landscape Architect or  Registered Professional Engineer — indicate:  
 State \_\_\_\_\_, License or Registration No. \_\_\_\_\_,  
 State Agency Phone No. for verification (\_\_\_\_\_)\_\_\_\_\_.
- Full Member of American Society of Landscape Architects at (202) 898-2444.
- Bachelor or higher degree in Agricultural Engineering — indicate: Degree \_\_\_\_\_ Year \_\_\_\_\_  
 School \_\_\_\_\_, Registrar Phone No. for verification (\_\_\_\_\_)\_\_\_\_\_.
- Certified Irrigation Designer certified by The Irrigation Association at (703) 573-3551 — indicate year of certification \_\_\_\_\_.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone No.(\_\_\_\_\_)\_\_\_\_\_

# Appendix L : Example Request for Administrative Relief

(Required by Code Section/Policy 306)

November 3, 1998

Reviewing Planner MC 310  
City Planning - Development Review  
Post Office Box 1575  
Colorado Springs, Colorado 80901

RE: REQUEST FOR LANDSCAPE ADMINISTRATIVE RELIEF - Development plan for North Powers Office Park, City Planning File Number AR DP 98-800.

To Reviewing Planner:

This development plan is for the construction of a 30,000 square foot office building in an OC (Office Complex) zone, on a site consisting of three (3) acres.

For the reasons stated below, we request Administrative Relief from the following landscape requirements:

REQUEST: #1  
CODE SECTION: 7.4.302.B.1  
REQUIREMENT: 25' deep landscape setback  
PROPOSAL: Landscape setback ranging from 20'-30' deep  
JUSTIFICATION: Landscape setback is reduced by 20% to 20' for less than 1/2 of the street frontage. The average depth of the proposed landscape setback complies with the required depth.

REQUEST: #2  
CODE SECTION: 7.4.323.C.2  
REQUIREMENT: Landscape buffer along common property line adjacent to residential use, including a 6' opaque structure.  
PROPOSAL: Propose deletion of opaque structure along the residential boundary. Replace opaque structure with double row of ornamental trees (44%) and evergreen trees (66%) at 1 tree per 15' of length and 60 evergreen shrubs in a 20' (average width) buffer.  
JUSTIFICATION: The proposed dense plantings will substantially exceed the buffer planting requirement and improve the compatibility of the adjacent uses. All of the multi-family project's property adjacent to our development is for parking.

Sincerely,

John Doe  
Owner/Developer of North Powers Office Park



"Foothills"

by Bill Beaudin

SIGNATURE  
LANDSCAPES  
DESIGN MANUAL



Colorado Springs Utilities

*It's how we're all connected*

**Prepared for:**

Colorado Springs Utilities  
2855 Mesa Road  
Colorado Springs, Colorado 80904  
(719) 448-4555  
Contact: Xeriscape Demonstration Garden Personnel

**Prepared by:**

Fawn Hayes Bell, ASLA  
Urban Design, Site Planning, Landscape Architecture  
Carriage House  
1619 Wood Avenue  
Colorado Springs, Colorado 80907  
(719) 577-9890

**Contributions and Plant List Preparations:**

Dyan del Gaudio, Landscape Technician/Community Education, Water Resources Department  
Michael Maloney, Photographer  
Diane Radeke, Landscape Technician, Water Resources Department  
Gary Rapp, Senior Planner, City of Colorado Springs, City Planning  
Ann Seymour, Water Conservation Specialist, Water Resources Department  
Jeanie Sims, Landscape Architect, Water Resources Department

## **Brief Overview of Landscape Code and Policy Manual**

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This Design Manual expands on information provided in the Colorado Springs Landscape Code and Policy Manual. However, the material contained in the Design Manual is applicable to landscape design for any purpose within the City. The following concise explanation of the Code is provided to clarify those landscapes which are regulated.

The City of Colorado Springs Landscape Code and Policy Manual addresses required landscape site categories and prototypical landscape types for developed lands, with the exception of single-family and two-family residential lots and those landscapes itemized in Code Section 305, A, Exempt Property. Policy Manual includes requirements for sustainable developed landscapes such as parking lots, streetscapes, etc., based on irrigation principles, horticultural requirements, and cost effective maintenance practices. The Code requires: appropriate horticultural practices; site preparation and efficient irrigation systems; preservation of valuable existing plants and native areas; configurations and grading for landscaped areas which can be efficiently irrigated; enforceable installation standards; and long-term maintenance. Plant lists provide specific information about water and cultural requirements, tolerances, and plant community identification of each species.

The Landscape Code emphasizes water conservation in landscapes and promotes water efficient landscapes which are most consistent with the essential character of the region. As such, the revised Code and Policy Manual requires a balanced proportion of xeric/regional landscapes to those which are more water intensive in the community.

### **Signature Landscapes: Purpose**

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This Design Manual results from a partnership between the Colorado Springs Water Resources Department and the City of Colorado Springs City Planning. It is intended to promote awareness of water conservation through the creation and recognition of beautiful, sustainable landscapes within the community.

The main purpose of this manual is to assist professional designers in facilitating compliance with the Signature Landscapes component of the Landscape Code and Policy Manual. Signature Landscapes is explained through graphics, maps, and brief essays about the history and vegetative character of Colorado Springs. Species lists of the eight indigenous plant communities are included as a detailed reference.

This manual is written for Colorado Springs, Colorado, and is intended to provide information that is accurate and specific for areas within the City limits as defined at the time of printing in 1998. As such, information derived from more generalized sources may differ somewhat from the data contained in this manual.

*“Nature, of course, is not uniform but varies as a function of historical geology, climate, physiography, soils, plants, animals and - consequently - intrinsic resources and land uses.”*

*Ian L. McHarg  
Design With Nature*

This document is not intended to be a design process instructional guide, per se. A sequential outline for utilizing Signature Landscapes information for design is found in Section 311 of the Landscape Code and Policy Manual.

### **Suggested Techniques For Utilizing Signature Landscapes In The Application Of Code Requirements**

A number of techniques to integrate the native and human-made landscapes have been provided. The first recommendation is to identify the soils, topographic features, and native plant community or communities which are ecosystem indicators of the development site. Together with careful site analysis, a design solution can be developed which is consistent with the ecological parameters of the site. Using the plant lists which are provided, the designer can choose a landscape theme which reflects the indigenous qualities of the region and conforms to the quantitative and qualitative Code requirements for each landscape site category.

*“Plants are particularly good indicators: they speak not only of the climate but of the soil, the water, even the history of the place”*

*Kevin Lynch  
Site Planning*

Other Code provisions protect significant plants and stands of native vegetation during construction. They restrict alteration in the amount of water run-off, irrigation, and introduction of exotic species into those areas. The “oasis” concept provides for an area of more intensive landscaping, frequently located near a pedestrian entrance to a building, balanced by more native or drought-tolerant plantings throughout the remaining areas of a site. The oasis may consist of more water demanding plants or alternatively can feature “native” plant communities as a reminder of the natural setting. Horticultural practices, soil amendments, minimum spacial requirements for plant growth, and grading allowances are provided in the Code and Policy Manual standards to complement the Signature Landscapes approach.

This framework requires that landscape designs be derived from an interpretation of a specific site’s development potentials and constraints. Additionally, historic or cultural aspects contribute to the selection of materials, plants, and forms. Therefore, there will be unique landscape areas, historic sites, urban neighborhoods, and preexisting development which may be relieved from the policies, either in part or entirely. It is evident that in an urban context the extent to which Signature Landscapes can be realized will vary depending on the project type and the site. However, the principles contained within this concept and the Code and Policy Manual are to be followed to the extent possible.

The Code allows for alternatives and design flexibility and does not displace acknowledged community values regarding the need for parks, recreational turf areas, and historic or ornamental plantings with mandated landscape changes unless the revisions are clearly warranted based on water savings or safety. Signature Landscapes intends to be consistent with other City Codes with regard to protection of health, safety, and welfare. It will be sufficiently

flexible to allow the optimal design solution for each project site and will result in meaningful water conservation through efficiency and mitigation of waste. The revised policies and regulations will enable the community to move towards the goals of water conservation and sustainability, as well as create an aesthetically pleasing environment.

## **Signature Landscapes**

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Signature Landscapes is a concept based on the premise that successful landscapes can satisfy cultural and societal values and respond to the ecological context of the natural region. It promotes landscapes which are uniquely tailored to Colorado Springs.

The term Signature Landscapes was coined to further mean landscape development that is consistent with local climatic and soil conditions and that evokes the natural aesthetic qualities of regional native vegetation. The concept encourages an understanding of this natural context of the City as a basis for design solutions. Plant selection should be grounded in the natural order of recognizable plant communities. Parameters for species survival such as soil preferences, tolerances, moisture requirements, exposure and microclimate preferences, and the essential character of the semiarid climate are to be considered.

Signature landscapes does not necessarily result in naturalized landscaping, the exclusive use of native plants, nor the literal restoration of formerly existing landscapes. Rather, it provides principles that will result in landscapes that are reflective of the region, water-efficient, horticulturally sustainable, and which demonstrate a balanced diversity.

Further, it encourages the conservation of significant, existing vegetation and limits alteration of unique or characteristic topography to the extent practicable. It promotes the inclusion of regional plant species and qualities in landscape design while recognizing that introduced, non-native plants may also be used to express these qualities.

Planting themes comprised of a minimum of 60 percent Signature plants can result in sustainable community landscapes which enhance the City's identity through its vegetative character. The information provided in this manual is based on the premise that once the local conditions are understood, a designer will be better able to create landscapes that are responsive to this specific region and to the community's values of beautification and sustainability.

Signature landscapes is not a set of predetermined solutions. It is a frame of reference which will serve as a catalyst for landscapes that will be well suited to the community. It is also a framework for design which promotes consideration of the following:

1. The goals of water conservation;
2. The value of the indigenous setting;
3. Promotion of horticultural and maintenance practices specific to the local conditions;
4. Allowance for design flexibility and innovative design solutions which contribute to a “sense of place” for the City.

### **Development of Signature Landscapes**

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The Signature Landscapes concept evolved from an initiative to define ways to improve the quality of landscapes within the City. Many traditional landscapes were evaluated in detail to identify weaknesses such as unsatisfactory design, engineering, and installation practices. It was determined that many problematic landscapes consisted of wholly exotic species which did not thrive in local conditions, required an excessive amount of supplemental water to survive, or did not fit the aesthetic qualities of the region.

Goals for the community’s landscapes were redefined through efforts of a task force appointed by City Council and an extensive public process in which members of the community were invited to voice their opinions. A new direction was developed to include the benefits of reduced water, energy, and resource consumption with an objective of enhancing the City in terms of liveability, property values, species diversification, and beauty.

These new landscapes will be planned with the natural qualities of the region in mind. Landscapes modeled on the local conditions should be the most successful, and plants which are either naturally occurring or have similar genetic properties or physiographic requirements will be most likely to thrive.

In an effort to identify these conditions and plants, an extensive exploratory process was conducted. Data about soils, plants, plant communities, and climates were evaluated for patterns and clues to the natural vegetative identity of Colorado Springs which would, in turn, serve as the basis for future landscapes. By sorting the data and mapping overlays of information, new conclusions were formalized. Then, potentials within a development scenario which reinforced rather than eradicated the landscape character of the community were identified.

The result is not so much a method as a clarified perspective about the local landscapes. It challenges the community to make design decisions which contribute to the preservation, development, and maintenance of landscapes which evoke the regional character.

A key focus of this manual is to make readily available the basic information about the eight indigenous plant communities, their respective geographic dispersion and species composition, and to provide guidance in the selection of plants for design purposes. This information is a tool for landscaping with a palette which will reference the regional vegetative character rather than substitute a wholly introduced landscape for Colorado Springs. In addition to Signature Landscapes information, designers will utilize site analysis data and Xeriscape principles to develop a project-specific design.

### **Colorado Springs Landscapes - An Historic Perspective**

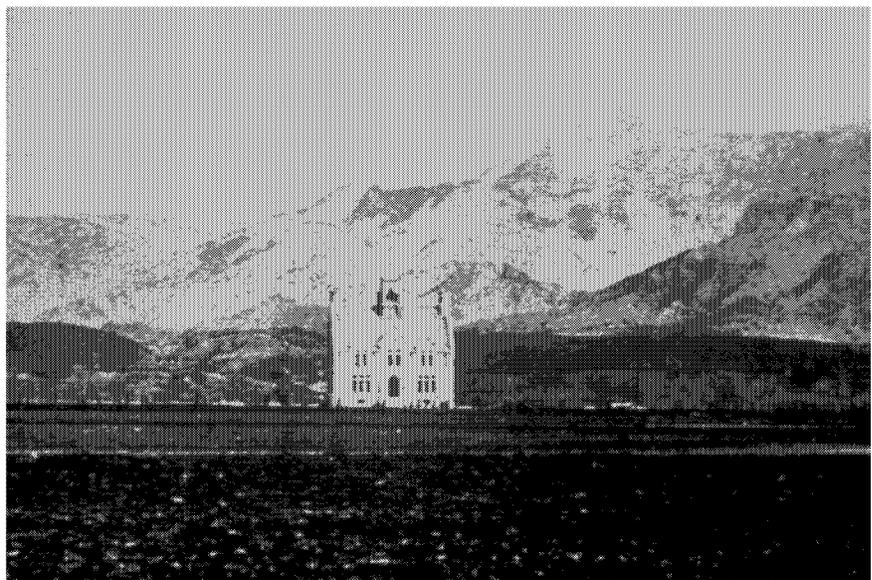
The unique beauty of the Pikes Peak region influenced General Palmer to found the City of Colorado Springs in 1871. In addition to overseeing the engineered layout of the streets to take advantage of dramatic views, he purchased and donated parks throughout the community, ranging from large naturalistic tracts to smaller ornamental open spaces distributed within the urban fabric. His intent was that the qualities of the indigenous setting be integrated with the human-made environment.

The indigenous setting for the initial City area was a treeless expanse of native grasses and forbs. To enhance the appeal of the new community and bridge the gap between the native grassy plains and the vegetated appearance of mature eastern cities to which many citizens were accustomed, he directed the planting of thousands of trees and diverted water from Fountain Creek along an eleven mile long irrigation ditch to provide for their survival. In the downtown area across from the train depot, he provided a demonstration garden of plants which were adapted to the region.

From the beginning of development within the City, there has been this mix of landscapes — those that overlay the natural setting with an alternative landscape style from another region and those that preserve or reveal the setting by using compatible colors, native and adapted plant materials, and patterns of planting which echo the indigenous plant communities and dispersal patterns. The inclusion of Pikes Peak and the foothills setting as a backdrop for individual gardens and parks is another theme integral to local designs.

The mature and diverse vegetation of today is very changed from the original setting due to extensive development and urban forestation by the City and its individual citizens.

**Colorado College,  
Cutler Hall, 1873.**



## **Application of Colorado Springs Signature Landscapes**

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In order to promote innovative designs that are based on the indigenous character of the region and yet respond to the architectural or aesthetic quality of the site context, it is helpful to consider the design precedents which influence the landscapes of Colorado Springs.

A visual inventory of Colorado Springs reveals that the English or European styles have been predominant models and, to a lesser extent, the native vegetative groupings have served as models for landscapes in naturalistic settings. Examples or elements of varied styles can be found throughout the City.

“Application of Colorado Springs Signature Landscapes,” Figure 1, briefly summarizes historic landscape styles most often emulated in the development of landscapes by designers. The placement of elements and plants constitutes a formality or informality. More formal and geometric styles on the left and those which are more freeform and organic on the right schematically represent the evolution of landscape design styles throughout history beginning (in this figure) with Medieval cloistered gardens. These styles are not independent of one another. Rather, they show the influences and motifs carried on or paired with new ideas. Signature Landscapes is a continuation in this evolving cycle of design styles. By reordering established style components and infusing them with a strong element of regional horticultural diversity, new forms can evolve.

It is apparent that in these various styles the landscapes are more than botanical entities. They are also social and cultural expressions. They reflect cultural origin, values, historic settings, and speak of underlying social and political order. For example, the rather rigid and geometric layout of Versailles expresses the dominance and order of the French aristocracy, while the sensuous, naturalistic forms of the imperial gardens of Kyoto are characteristically Japanese.

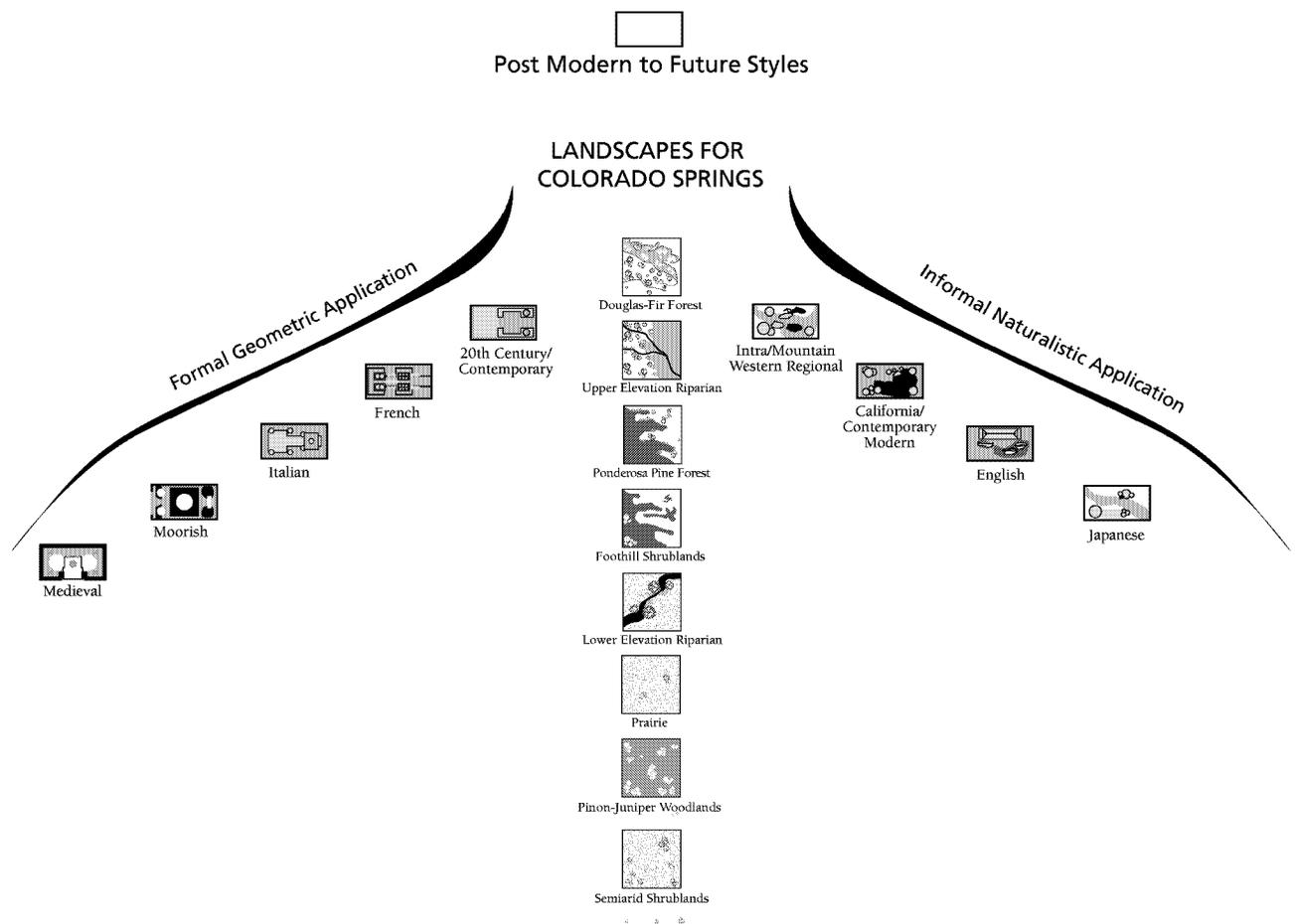
These landscape styles illustrate, too, the dual purposes of landscapes to: (a) provide escape or mitigate undesirable factors, such as utilizing walled gardens, moats, and hedges; and (b) to promote pleasurable aspects including plant variety, color, fragrance, and shade. These same purposes are reflected in the Landscape Code and Policy Manual in the required site categories which buffer, screen, or enhance the environment. They are goals expressed in a myriad of forms in private, non-regulated landscapes, as well.

Historic styles, whether in the culture or replicated in Colorado Springs, are recognizable by the characteristic geometric and organic patterns. In addition to pattern, the other distinguishing aspect of a landscape is its vegetative character. The species selection, determined by the constraints of the natural climatic and soil conditions of the locale, reinforces the sense of the pattern and provides clues to the ecological niche in which the landscape exists.

These two elements, pattern and species, together contribute to the defining quality of the landscape. Style components may be applied in Colorado Springs, though species selection will be limited by adaptability to local conditions. In many cases, species substitutions will occur in order to achieve a landscape which can be sustained. For example, a columnar juniper which will survive in Colorado Springs may substitute for an Italian cypress in order to achieve a similar effect. The plant lists developed for Signature Landscapes provide a wide selection of plants and detailed information for species selection.

The use of established styles planted with locally hardy species is one premise for design which is relatively easy to implement. Signature Landscapes, however, also encourages the development of innovative styles which reflect the distinct values, constraints, and opportunities of the intermountain West. It also challenges the community to broaden its definition of beauty in landscaping.

**Figure 1. Application of Colorado Springs Signature Landscapes**



Forms which express regional culture, architecture, raw materials, or construction techniques can lead to a distinctive style for the City. In planting, the natural patterns expressed by indigenous vegetation as it naturally occurs can serve as sources for inspiration. These distinctive, recognizable patterns are discussed in this manual.

The melding of historic precedent with innovative styles, inclusion of regional character in the built environment, and selection of plant species and patterns derived from the locale can result in landscapes that will reinforce the “sense of place” for Colorado Springs. An understanding of the local conditions, indigenous vegetation, respective plant communities, and landscape history is essential in the development of successful and sustainable landscapes for the City. By combining a knowledge of the region with professional skills, the landscape architect or designer can blend the ecological, aesthetic, and site program goals in an appropriate design.

In cities, the development process becomes the determining action in landscapes — perhaps even more than the natural forces which shaped it. In the urban setting it can be difficult to perceive ways in which the indigenous landscapes can be conveyed. Site development often results in the complete loss of existing vegetation and drainage patterns, the total recontouring of the land, development of buffers to adjacent parcels, and the necessity for continual irrigation.

*“A ‘natural’ landscape is diverse; it contains a very large number of both plant and animal species. Man’s interference in the natural landscape results in the loss of a large number of these species, leading to a much simpler, less diverse community. The planting of native vegetation, of plant associations within their correct habits, would make a very large contribution to the biological health of the landscape.”*

*Nan Fairbrother  
The Nature of  
Landscape Design*

Additionally, the architectural character of a new building may introduce a design direction which the landscape should complement or impose a scale which cannot be counterbalanced by the landscape, given the spatial limitations of the development site. When the site is located adjacent to other development areas, the landscape will conflict with or contribute to an overall continuity of “streetscape” design. Signature Landscapes strives to blend the urban development with the indigenous setting and to find ways to implement site development which mitigates deleterious impacts on the land.

One of the primary functions of a site specific landscape is to tie the building to the site and the site to its context by that same design. However, when a structure, reshaping of the ground plane, or configurations which define landscape spaces are disharmonious with the setting, it can be an enormous challenge to rely on the “landscape” to repair the visual and pragmatic problems created in development. Careful site analysis, engineering, and preservation techniques can offset these potential design mistakes.

The graphic icons in Figure 1 are schematic reminders of the design principle that landscapes are recognized by two elements: species and pattern. Icons for the eight native plant communities of Colorado Springs are included, too, as an aid in visualizing natural patterns within this context.

## The Integrated Landscape Character Of Colorado Springs

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Landscapes can be indicators of specific geographic settings and a City's historic origins — they speak of the underlying character of social and horticultural diversity. Since its founding in 1871, Colorado Springs has been characterized by the visual integration of the foothills and prairie topography and vegetation with the built environment.

The geographic location and diverse influences create the City's character. Colorado Springs is situated in a semiarid area within a narrow band of land between the western edge of the Great Plains and the foothills of the Front Range of the Rocky Mountains. Due to the changes in elevation within City limits, which ranges from approximately 5,500 to 7,500 feet above sea level, this setting provides varied topographic features and rich ecological diversity.

This varied vegetative character reflects the fact that Colorado Springs is situated at the juxtaposition of major ecosystems. This region is the eastern most limit of the ponderosa pine and Douglas-fir forests, near the northern range for native piñon pine and large stands of scrub oak, and the western edge of the short grass prairie.

This diversity is the dominant landscape characteristic of the region in terms of ecosystems, plant communities, soil types, elevations, precipitation and wind patterns, slope aspect and solar orientation, topography, and drainage patterns. The eight widely varied local plant communities are indicative of this diversity.

Many limiting factors influence plant survival. In addition to the semiarid climate, the setting is defined by extreme fluctuations in temperature, low organic matter in soils, desiccating winter winds, high solar intensity, hail storms, and widely varying weather conditions. The average annual precipitation is 16.2 inches; approximately 13.2 inches occurs during a growing season that averages 148 days. For these reasons, a careful site analysis is imperative for all landscape development in Colorado Springs. Utilizing site data, Xeriscape principles, and Signature Landscapes information, successful water-efficient landscapes that are compatible with the natural setting can be developed.

## Open Space Lands

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The natural rhythm of alternating ridges and valleys together with the mesas, rolling prairie, broad, alluvial lowlands, and drainage corridors form the distinctive land forms of the City. The colors of the natural vegetation range from muted wheats and grays to blue-greens and reds, browns, and ochres. Evergreen and deciduous trees, shrubs, and grasses extend throughout the varied micro- and macroclimates. These are the characteristic elements of the indigenous local landscape.

The numerous undeveloped open space lands which occur throughout the City reflect the naturalistic qualities of the setting and provide the backdrop of the foothills rising to Pikes Peak at an elevation of 14,110 feet. The current Open Space Plan projections indicate that in a “fully developed” scenario, naturalistic open space will comprise less than one percent of the City’s land area — resulting in an inevitable loss of the much of City’s natural beauty.

In addition to this loss, many areas have already been severely altered by disturbance due to mining, grazing, and development of building sites with extensive establishment of high water use turf. Revegetation and forestation policies have also dramatically changed the setting. These alterations of the indigenous setting have converted the center of the City to a mature and diverse urban forest.

In order to ensure that further development does not fully displace the visual quality of the City’s natural setting, Signature Landscapes provides an explanation of the local vegetative character as a reference point for newly developed urban landscapes. New Signature Landscapes in the urban context can partially compensate for the loss of the community’s rapidly disappearing natural surroundings.

Much of the land being altered is in private, single family housing units that are not regulated by City code. For this collective land area to reflect Signature Landscapes, voluntary actions by citizens will be promoted through educational tools such as this manual.

## Pattern

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Pattern, or the placement of elements in a composition, has been identified as one of the two most important aspects for differentiating historic styles. In Signature Landscapes, pattern goes beyond the human-made imposition of form on the land. It looks also at the distinctive patterns which the species dispersal creates on the ground plane through the sequence and spacing of plants. Landscape patterns of species dispersal provide visual clues to the varying site conditions in which individual species or entire plant communities thrive. For example, trees cluster along northeast slopes and the margins of water bodies; fingers of meadows alternate with shrub masses in undulating foothills; and the prairie, dominated by grasses and forbs, creates a vast openness.

From a vertical cross-section, the relative complexity or simplicity in the layering of plants as canopy, understory, and ground cover are distinctly different in form for each plant community due to species variation, density of vegetative cover, and plant associations. The forms or patterns derived from the individual forms of the characteristic species contribute to the composition. Upright, columnar conifers; dense, twiggy shrubs; open-clump small trees; towering, single trunk canopy trees; wispy grasses; rigid, pyramidal evergreens; and the textural component of a myriad of individual leaf forms are examples of this variety.

Listed below are four important reasons for studying these naturally occurring patterns.

1. Images provided by nature can serve as a basis for a range of design vignettes.
2. The ecological and aesthetic examples illustrate ways to make “designed” landscapes “feel” more accurate, aesthetically pleasing, and harmonious within the natural context.
3. An understanding of the ecological niche favorable for a given plant species will clarify the actual growing needs for the plant which, when replicated, will result in more sustainable landscapes.
4. Close observation of nature trains the eye to see landscapes in ways mere plant lists cannot.

Some plant patterns and associations indicate a dynamic ecological environment. Pioneer species can be indicators of revegetation following a disturbance to the land area. Secondary succession may include invasive weed species. This stage characterizes much of the developable land in Colorado Springs.

In landscape design, pattern information is utilized to create balanced horticultural groupings and to provide an aesthetic quality based in natural order. Pattern is defined as the characteristic form, a model accepted as proposed for imitation, a specimen used as a sample of the whole, and as a natural or chance configuration. The appeal of pattern in both human-made elements and vegetation is that it provides a sense of order, repose, excitement, color, harmony, and balance. Pleasing patterns are hallmarks of design — repetition, balance, and variety in an overall unity.

The paintings of Kandinsky, Jackson Pollack, and Mondrian are examples of art which demonstrate “pure” form derived from the basic elements of line and color. For some, these compositions are easier to understand than natural ones. This manual provides simple, stylized graphics to facilitate the designer’s awareness of these patterns in the natural landscape.

It is not merely species selection in landscape design but species in combination with pattern that results in an aesthetically pleasing solution. By diagrammatically mapping the patterns of each respective plant community, it becomes evident that the composition of each is very different from the others.

### **Colorado Springs Native Plant Communities**

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The visual image of Colorado Springs is a collective collage comprised of eight different plant communities. The naturally occurring landscapes consist of broad sweeps of prairie grasslands; pockets of semiarid shrublands; piñon-juniper woodlands; and thickets of low shrubs bordering open meadows, leading to irregular transition zones. At higher elevations, ponderosa pines dominate the gravelly foothills and mix with Douglas-fir at the upper limit of the City to the west. Riparian species are nestled along ravines and waterways, with water-thirsty firs and birch in the upland riparian areas and cottonwoods and willows along lower elevation drainage corridors.

This diversity is apparent, but perhaps not well understood. The natural dispersal of these eight plant communities within Colorado Springs City limits is demonstrated in Map 1, “Native Plant Communities of Colorado Springs.” It is possible to “read” the landscape by identifying the plant community common to an area of the City and then analyzing the plant species which are characteristic of that community.

Nature tends to “sort” plants into groups of species with tolerances for similar growing conditions. These conditions are soil type, altitude, slope orientation, precipitation and available moisture, sun or shade, and exposure conditions such as winds, vacillating temperatures, and winter desiccation. Some of these variables are reviewed in more detail in this manual.

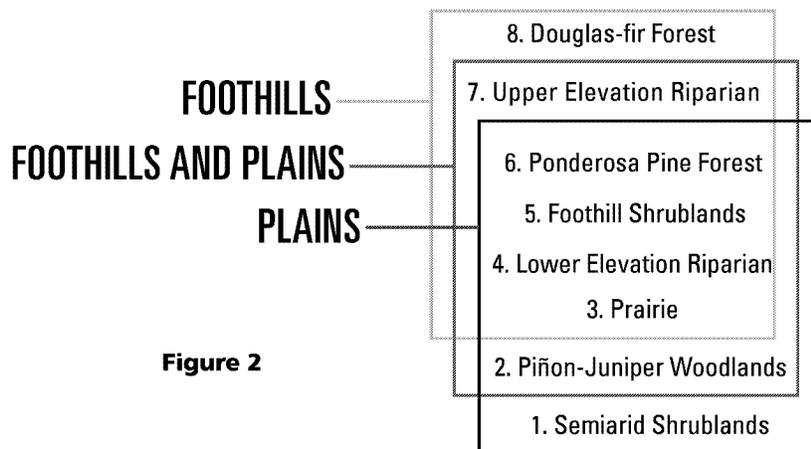
Species that can survive within the constraints of a set of conditions, both at the microclimate and macroclimate levels, are found growing together. An identifiable association of plants is defined, for ecological and horticultural purposes, as a community. The dominant species or feature determines the name given to the community.

## Climate Zones

The eight plant communities indigenous within the City's limits can be associated with one another in three generalized climate zones as shown in Map 2, "Climate Zones for Signature Landscapes."

These associations are developed from generalized plant species ranges, soil and climate conditions, typically occurring ecotones and microclimates, and are derived from the USDA-SCS General Soil Map Units of El Paso County, Colorado. The three climate zones are as follows:

1. Cold, subhumid to semiarid foothills
2. Mild, semiarid foothills and plains
3. Mild, semiarid to arid plains



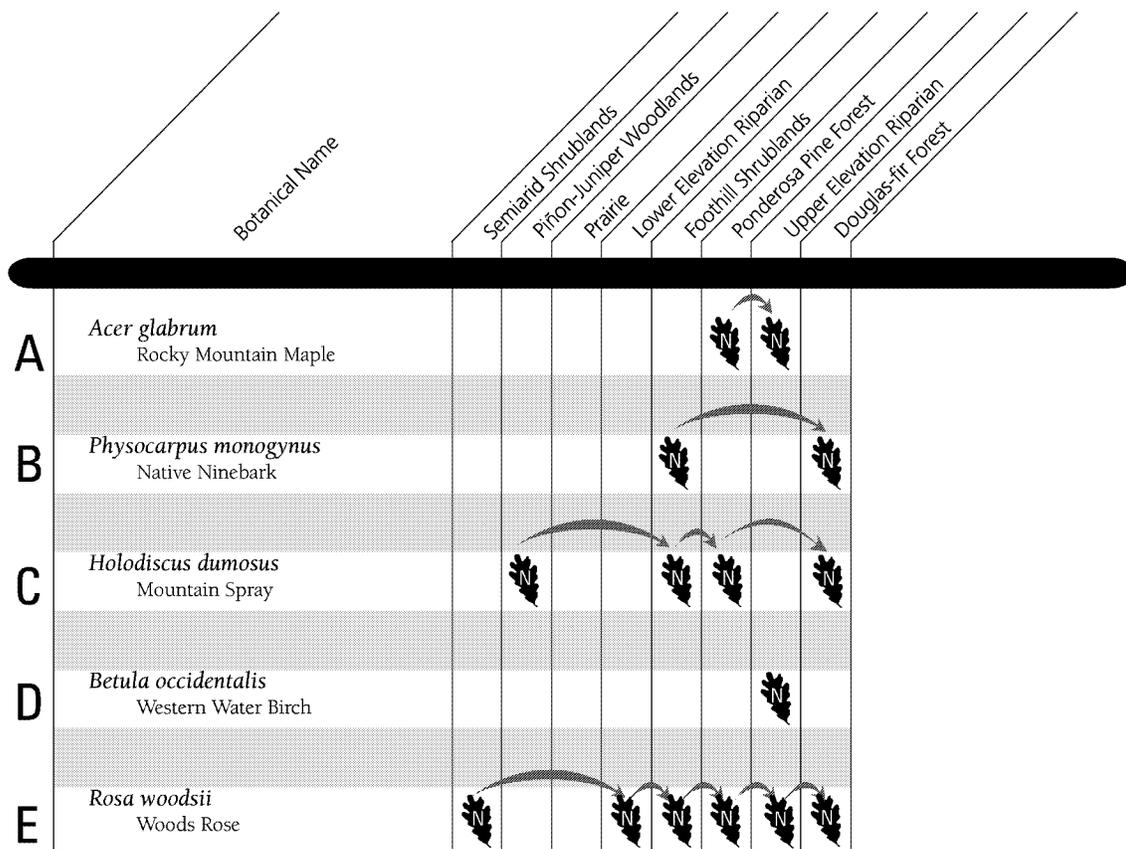
The prairie, lower elevation riparian, foothill shrublands, and ponderosa pine forest communities are common to all three climate zones. The diagram in Figure 2 illustrates the overlapping patterns of the plant communities within each climate zone. The two plant communities that do not overlap with any of the other plant communities typically contain species that will not be suitable for most site conditions.

In terms of land area, the dominant zone in Colorado Springs consists of mild, semiarid foothills and plains. Although urban forestation has transformed much of the developed area within this zone, the characteristic climate nevertheless remains the same.

For a given site, generally the six associated plant communities within a climate zone will provide potential plant selections because of a shared, broadly defined range of precipitation, soil, altitude, and exposure tolerances. However, these communities typically are comprised of at least some species which may not be adapted to conditions of a specific project site. The designer, therefore, must conduct a careful site analysis and select only those species which are tolerant of the conditions within the proposed landscape. Species may be grouped according to respective communities or, for design purposes, combined from several communities within the climate zone.

There is rarely a distinct boundary between adjacent communities in nature. In fact, edges are blended into ecotones which share species as communities transition into each other in an irregular pattern. The occurrence of individual species throughout the eight local plant communities can vary significantly. This natural selection and dispersal of distinct communities and blended ecotones can serve as a model to facilitate design solutions, as illustrated in Figure 3, "Species Dispersal Chart." Where microclimate variations provide a range of conditions, plants which occur in neighboring communities can frequently be grouped together on the same site.

Figure 3. Species Dispersal



- A = A plant species which naturally occurs in two adjacent plant communities.
- B = A plant species which naturally occurs in two plant communities, but not necessarily neighboring.
- C = A plant species which naturally occurs in several plant communities.
- D = A plant species which is characteristic of only one plant community.
- E = A plant species which is common to most local plant communities.

## Soils in Colorado Springs

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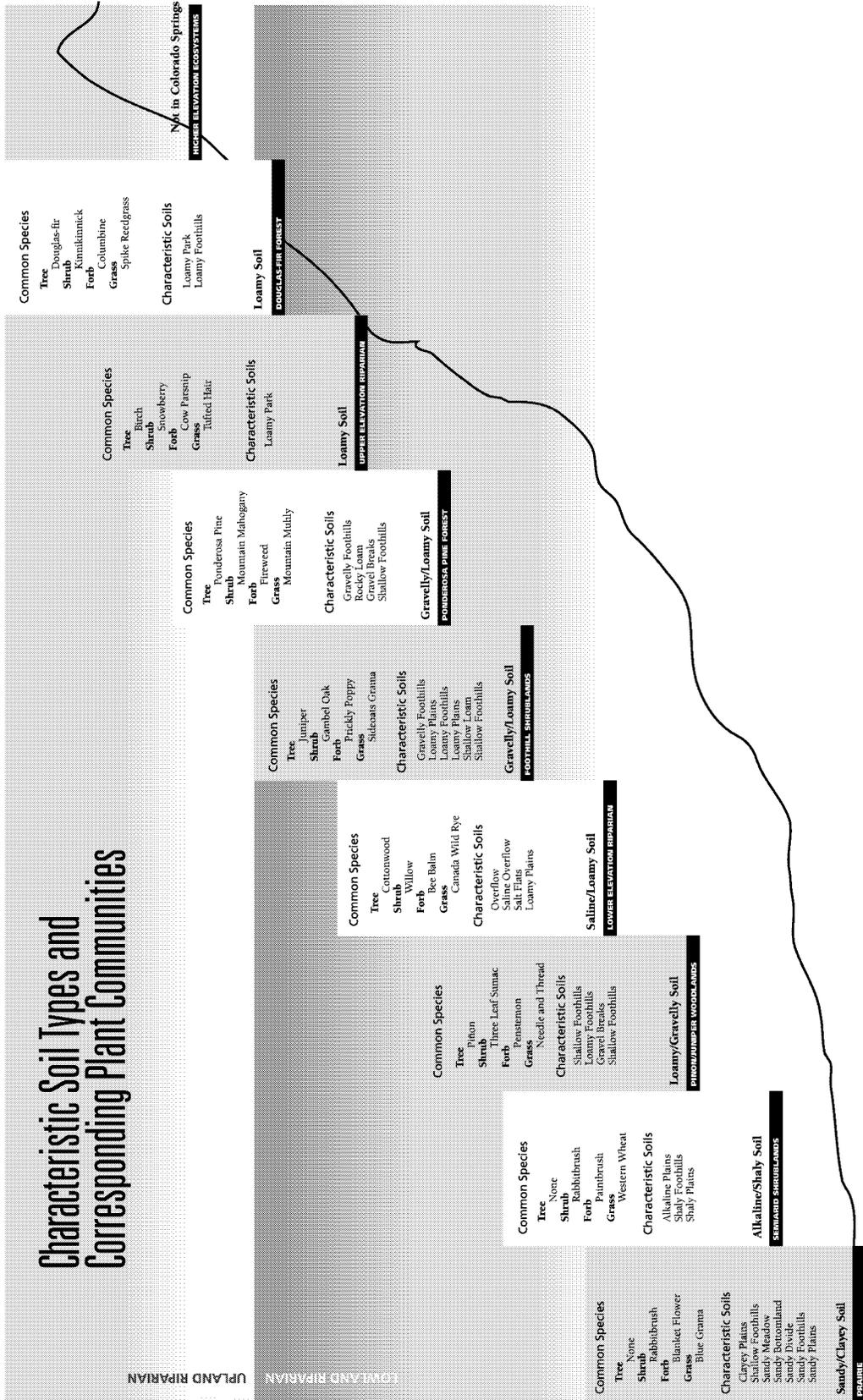
The natural rhythm of the alternating ridges and valleys, the distinctive landforms of the foothills and mesas, the prairie and broad, alluvial lowlands — together with rock outcroppings and natural drainageways — contribute to the region's striking visual character. This distinctive terrain also reveals the geological history of the area which includes glacial action, uplift, landslides, and alluvium and eolian dispersal of decomposed granite and sandstone, respectively.

Soils within Colorado Springs range from gravels to sands, loams, and clays. Soil types occur in orderly patterns related to landforms and indicate the parent mineral, plant and animal materials in their history. Using the three climate zones as a guide, soils can be broken down into three main categories, as follows:

1. Soils on cold, semiarid foothills, with slopes nearly level to steep, lying along the western boundary of the City. These soils are derived from granite and sedimentary rock which have decomposed into gravelly to loamy sands, often over layers of clay, sandstone, or shale.
2. Soils on mild, semiarid foothills and plains, occurring in the central and north-eastern areas of the City. Derived from sedimentary rock, wind, and stream-laid red sandstone and gravel, they have formed into well-drained sandy loams.
3. Soils on mild, semiarid to arid plains, lying along the south and south-east areas of the City. Here, water and wind action has left deposits of gravelly, sandy, and clay loams, on level to rolling topography.

Though more than 110 different soils have been identified by the USDA Natural Resources Conservation Service as occurring within Colorado Springs, these soils have been combined and grouped into 23 specific soil types as highlighted in Map 3, "General Vegetation and Soil Associations." The varying nature of the soils, combined with altitude and moisture levels, helps determine the natural dispersal of the characteristic plant communities. (See Figure 4, "Characteristic Soil Types and Corresponding Plant Communities.")

Figure 4. Characteristic Soil Types and Corresponding Plant Communities



## Site Composition

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As a designer is selecting plant species for a given site, the following guide will help with appropriate selection.

1. Identify the appropriate climate zone.
2. Study the associated plant communities which will serve as an ecological basis for the design.
3. Plan site microclimates and generalized hydrozones based on data gathered from the site analysis and grading and soils information.
4. Formalize design intent.
5. Calculate any required program elements or required quantities of plant types.
6. Begin species selection by comparing the composition of the indigenous community/communities to be referenced in the design.
7. Make appropriate plant selections and determine availability of plant materials.

For variety and design flexibility, other species and cultivars that can be adapted to the site and microclimate but are not included in the four categories of Signature Landscapes may be selected. As such, a wide variety of landscapes which respond to the historical styles, microclimates, design purposes, aesthetic qualities, and ecological context of the City can be developed. Designs will differ too in the proportional mix of grasses, herbaceous plants, shrubs, trees, and species composition, thus reinforcing diversification in the City's landscapes.

The four categories of signature plants used for design purposes are:

**Native plant:** A species that is indigenous within the Colorado Springs City limits and occurs naturally in that same community.

**Borrowed native plant:** A species that is indigenous to a regional native plant community but does not occur naturally in that same community within the Colorado Springs City limits.

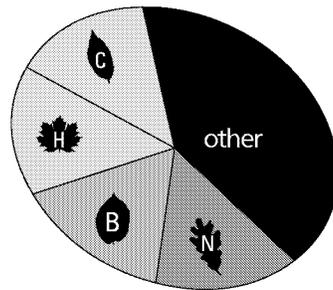
**Historically adapted plant:** A self-propagating species that is not indigenous to the regional native plant community it occupies but was likely introduced by early settlers and is now so prevalent as to appear indigenous.

**Compatible plant:** A species with genetic or ornamental properties and physiographic requirements that closely resembles those properties and requirements of a plant in a specific regional native plant community or of a plant that is historically adapted to that community.

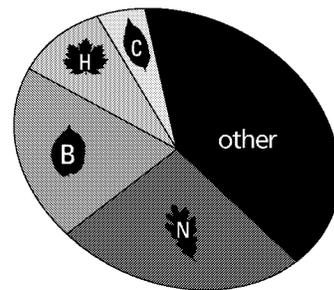
Figure 5, “Sample Site Composition,” gives a sampling of projected design scenarios. Keep in mind 40% can be from any category, including exotic species. Any combination of native, borrowed native, historically adapted, or compatible plants will then be used to complete the other 60% of the design.

**Figure 5. Sample Site Composition**

Proportional make-up will vary according to site analysis and grading and soils information. This figure illustrates just two of many combinations that are possible.



-  Compatible Plants — 15%
-  Historically Adapted Plants — 15%
-  Borrowed Native Plants — 15%
-  Native Plants — 15%
-  Other Plants — 40%



-  Compatible Plants — 5%
-  Historically Adapted Plants — 10%
-  Borrowed Native Plants — 15%
-  Native Plants — 20%
-  Other Plants — 40%

## Colorado Plant Communities

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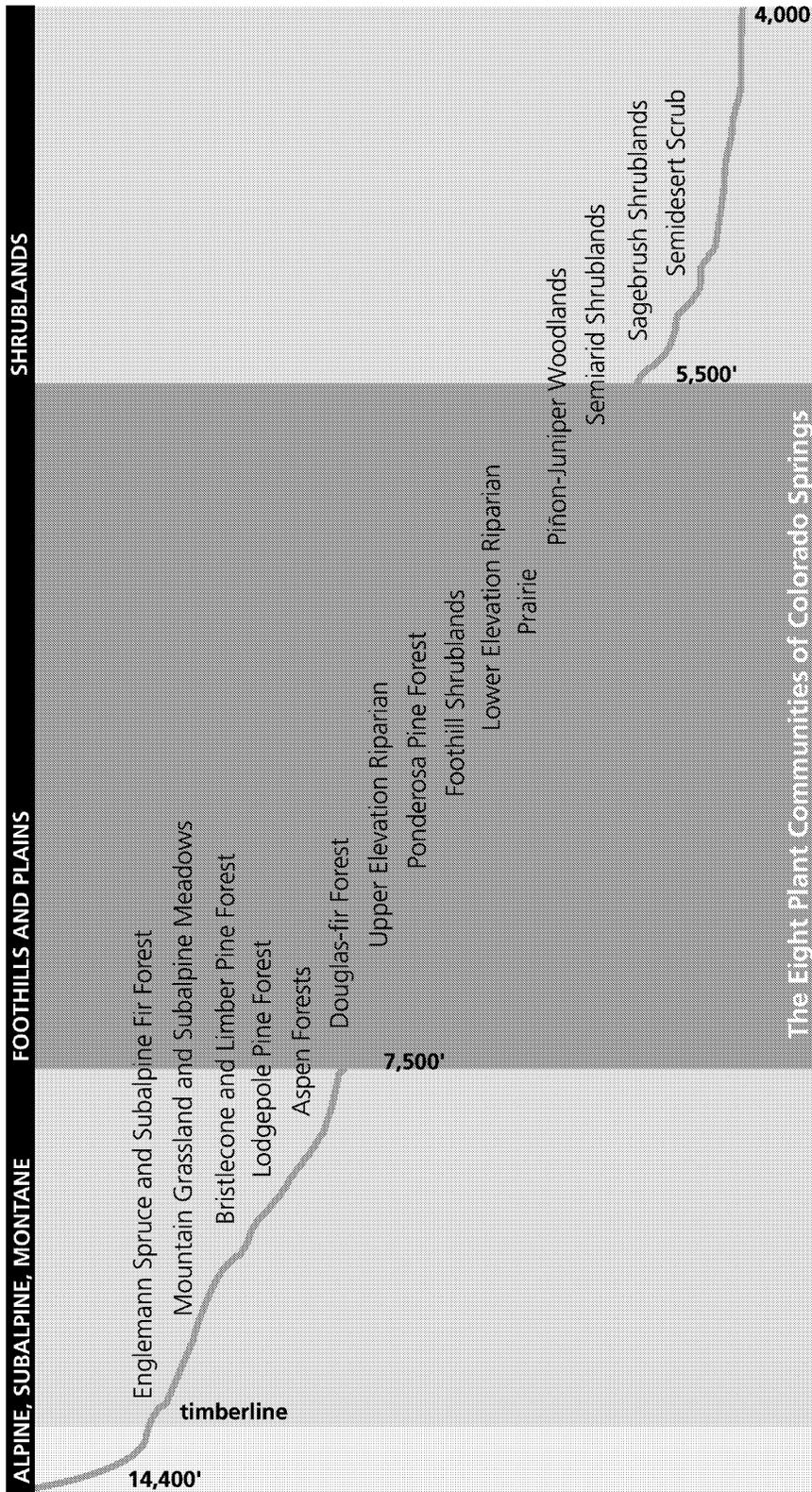
Colorado Springs lies in one of the richest and most diverse vegetation areas of the region. While outlying areas may be more limited in diversity of naturally occurring plant types, many species from plant communities that occur outside the City's boundaries can be adapted to Colorado Springs. Use of plants from these communities contributes a regional rather than City-specific aesthetic to landscape designs. Species such as bristlecone pine, found growing in windy, exposed places near timberline, and red twig dogwood from higher elevation riparian areas, can add variety and beauty. However, species such as aspen, which populate disturbed land areas in moist valleys and slopes above 7,500', may not be so well adapted or may require a degree of artificiality to fit into a Colorado Springs landscape.

Figure 6, "Colorado Plant Communities," breaks Colorado's plant communities into three distinct groups, illustrating those two which occur at drier and lower elevations, the eight within Colorado Springs City limits (and other portions of Colorado), and the remaining five in the higher montane, subalpine, and alpine zones.

A generalized equation which applies to these communities is that five hundred miles north or south (latitude) equals 1000' in altitude (elevation) or three degrees cooler or warmer average temperatures. This concept explains the reason why geographic ranges vary significantly and why the same species can be found growing naturally at different elevations in different areas of Colorado.

When plants with a natural range outside of Colorado Springs are utilized for local landscapes, the growing conditions must be considered, and to the extent that they are different from Colorado Springs, the growing environment must be artificially duplicated for the plants to thrive.

Figure 6. Colorado Plant Communities



## **Introduction to the Plant Communities**

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Observation of plants which are associated with each ecosystem and with each other reveals that nature will ultimately “sort” a grouping of plants that will be in balance with one another. This “sorting” has been translated, for the purposes of this manual, into the plant lists which follow this introduction.

Appendix A, “Plant Communities of Colorado,” provides a brief overview of each of the eight plant communities naturally occurring in Colorado Springs and referenced throughout this design manual. A short description of the range and typical conditions for that community as it occurs in the City limits of Colorado Springs, a characteristic pattern icon, and a photographic image serve to orient the designer to the salient information about the community. Plant species listed are regional and may not, therefore, occur within City limits. This broad sampling further illustrates the diversity of plant communities in our region.

Lists are only a guide in appropriate plant selection. The qualified designer will be knowledgeable of additional species selections, cultivars, and hybrids. Additionally, it is anticipated that other adaptable exotics will be introduced by horticulturalists and botanists and that some native plants that have not been readily available in the nursery industry will be grown for use in the urban landscape.

## Semiarid Shrublands

The semiarid shrublands community comprises only a small portion of Colorado Springs. The area lies near the southern limits of the city, west of Highway 115 and Fort Carson.

### Climate:

Elevation is approximately 5500 - 6200'. It has the driest and warmest climate of the eight plant communities within Colorado Springs and is characterized by extremes of winter and summer temperatures.

### Characteristic Composition:

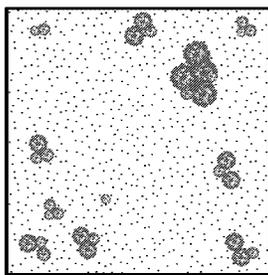
The understory consists of many bunch and sod-forming grasses. Shrubby species are tolerant of dry conditions and poor soils. Shrubs tend to be low-growing; there is an absence of trees.

### Soils:

Sites are commonly shaley and can be very alkaline. These shrublands are often difficult to revegetate and can be very erosion prone.

### Characteristic Pattern:

The pattern reflects an intermixing of shrubs and grasses in a relatively open-spaced arrangement, typically occurring on plains and in the foothills.



### Trees

Absence of Trees

### Shrubs

*Amelanchier utahensis*  
Serviceberry: Utah

*Artemisia filifolia*  
Sagebrush: Sand

*Atriplex canescens*  
Saltbush: Four-wing

*Atriplex confertifolia*  
Saltbush: Spiny

*Chrysothamnus depressus*  
Rabbitbrush

*Chrysothamnus nauseosus*  
Rabbitbrush

*Cowania mexicana*  
Cliffrose: Mexican

*Echinocereus triglochidiatus*  
Cactus: Claret Cup

*Echinocereus viridiflorus*  
Cactus: Hedgehog

*Eleagnus commutata*  
Silverberry

*Eurotia lanata* (syn: *Ceratoides*)  
Winterfat

*Gutierrezia sarothrae*  
Snakeweed: Broom

*Opuntia imbricata*  
Cactus: Cholla

*Prunus besseyi*  
Cherry: Sand

*Prunus pensylvanica*  
Cherry: Pin

*Prunus virginiana melanocarpa*  
Chokecherry

*Purshia tridentata*  
Antelope Bitterbrush

*Rosa woodsii*  
Rose: Woods

*Rubus deliciosus*  
Raspberry: Boulder

*Rubus idaeus*  
Raspberry

*Sarcobatus vermiculatus*  
Greasewood

*Seriphidium canum* (syn: *Artemisia cana*)

Sagebrush: Silver

*Seriphidium tridentatum* (syn: *Artemisia tridentata*)

Sagebrush: Big

*Tetradymia spinosa*

Horsebrush: Spiny

*Yucca glauca*

Yucca: Narrow-leaf

### Wildflowers

*Achillea lanulosa*  
Yarrow: Wild

*Allium cernuum*  
Onion: Nodding

*Antennaria microphylla*  
Pussytoes

*Argemone polyanthemus*  
Poppy: Prickly

*Astragalus argophyllus*, *A. purshii*  
Milkvetch

*Balsamorhiza sagittata*  
Balsamroot

*Calochortus nuttallii*  
Lily: Mariposa

*Castilleja integra*  
Paintbrush

*Cucurbita foetidissima*  
Buffalo Gourd

*Delphinium nuttallianum*  
Larkspur: Nutalls

*Erigeron speciosus*  
Fleabane: Showy

*Eriogonum umbellatum*  
Buckwheat: Sulphur Flower

*Geranium fremontii*  
Geranium: Fremont

*Gilia aggregata* (syn: *Ipomopsis*)  
Gilia

*Heterotheca villosa* (syn: *Chrysopsis*)  
Aster: Golden

*Liatris punctata*  
Gayfeather: Dotted

*Lupinus argenteus*, *L. sericeus*  
Lupine

- Mirabilis multiflora*  
Four O'Clock: Desert
- Oxytropis lambertii*  
Locoweed: Lambert's
- Penstemon teucroides*, *P. eatonii*, *P. strictus*  
Penstemon: Mat, Firecracker, Rocky Mountain
- Phacelia heterophylla*  
Scorpionweed
- Phlox longifolia*  
Phlox
- Sphaeralcea coccinea*  
Mallow: Copper
- Talinum parviflorum*  
Talinum
- Viola nuttallii*  
Violet

**Grasses**

- Agropyron cristatum*  
Wheatgrass: Crested
- Agropyron smithii*  
Wheatgrass: Western
- Andropogon gerardii*  
Bluestem: Big
- Boutelou curtipendula*  
Grama: Side-oats
- Bouteloua gracilis*  
Grama: Blue
- Carex spp.*  
Sedge
- Critesion jubatum*  
Foxtail-barley
- Distichlis spicata*  
Saltgrass
- Elymus canadensis*  
Wild-rye
- Hilaria jamesii*  
Galleta
- Koeleria pyramidata*  
Junegrass
- Muhlenbergia torreyi*  
Muhly: Ring
- Oryzopsis hymenoides*  
Ricegrass: Indian

- Panicum virgatum*  
Switchgrass
- Poa secunda*  
Bluegrass: Curly
- Schizachyrium scoparium*  
Bluestem: Little
- Sitonia hystrix*  
Squirreltail
- Sporobolus airoides*  
Sacaton: Alkali
- Sporobolus cryptandrus*  
Dropseed: Sand
- Stipa comata*  
Needle-and-thread
- Stipa robusta*  
Sleepy



## Piñon-Juniper Woodlands

The piñon-juniper woodlands community occurs in only a few isolated locations within Colorado Springs - in Garden of the Gods and a small area northeast of Palmer Park, between Academy and Powers Boulevards. It occurs extensively south to Pueblo and nears its northern range in Colorado Springs.

### Climate:

Elevation is approximately 6,000 - 6,800'. This is generally a dry community which experiences extreme temperature fluctuations.

### Characteristic Composition:

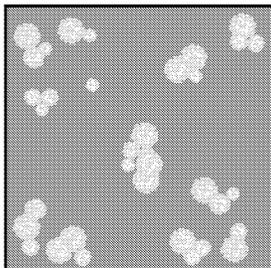
The piñon-juniper community is the shortest-growing evergreen forest in Colorado, being comprised largely of short evergreen trees and a wide variety of shrubs.

### Soils:

Sites are commonly on shallow, gravelly to loamy soils. Due to the minimal amount of understory species, these communities are often susceptible to erosion.

### Characteristic Pattern:

An evenly and widely spaced pattern on hillsides and along mesas, with a greater density on flatter slopes, is typical of this community. The ground plane is relatively sparse with grasses, forbs, and accompanying shrubs often occurring in groves along moister margins. This community is found in the foothills on south and west-facing slopes.



### Trees

*Juniperus monosperma*

Juniper: One-seed

*Juniperus scopulorum*

Juniper: Rocky Mountain

*Pinus edulis*

Pine: Piñon

*Pinus ponderosa*

Pine: Ponderosa

### Shrubs

*Amelanchier alnifolia*

Serviceberry: Saskatoon

*Amelanchier utahensis*

Serviceberry: Utah

*Amorpha fruticosa*

Indigo Bush

*Atriplex canescens*

Saltbush: Four-winged

*Atriplex confertifolia*

Saltbush: Spiny

*Cercocarpus ledifolius*

Mahogany: Curl-leaf

*Cercocarpus montanus*

Mahogany: Mountain

*Chamaebatiaria millefolium*

Fernbush

*Chrysothamnus nauseosus*

Rabbitbrush

*Clematis ligusticifolia*

Virgin's Bower

*Coryphantha vivipara*

Cactus: Spiny Star

*Cowania mexicana*

Cliffrose

*Echinocereus triglochidiatus*

Cactus: Claret Cup

*Echinocereus viridiflorus*

Cactus: Hedgehog

*Ephedra viridis*, *E. torreyana*

Mormon Tea

*Eurotia lanata* (syn: *Ceratoides*)

Winterfat

*Fallugia paradoxa*

Apache Plume

*Fendlera rupicola*

Mockorange: False

*Gutierrezia sarothrae*

Snakeweed: Broom

*Holodiscus dumosus*

Mountain Spray

*Juniperus communis*

Juniper: Common

*Philadelphus microphyllus*

Mockorange: Little-leaf

*Purshia tridentata*

Antelope Bitterbrush

*Quercus gambelii*

Oak: Gambel's

*Rhus aromatica*

Sumac: Fragrant

*Rhus trilobata*

Sumac: Three-leaf

*Ribes aureum*

Currant: Golden

*Ribes cereum*

Currant: Wax

*Ribes imerme*

Gooseberry

*Seriphidium tridentatum* (syn:

*Artemisia tridentata*)

Sagebrush: Big

*Shepherdia canadensis*

Buffaloberry: Canada

*Yucca glauca*

Yucca: Narrow-leaf

### Wildflowers

*Astragalus argophyllus*, *A. purshii*

Milkvetch

*Castilleja liniariifolia*, *C. integra*

Paintbrush

*Chaenactis douglasii*

Morning-bride

*Cryptantha recurvata*, *C. gracilis*, *C.*

*pterocarya*

Cryptantha

*Erigeron* spp.

Daisy: Fleabane

*Eriogonum* spp.

Buckwheat: Wild

*Erysimum asperum*

Wallflower: Western

*Geranium caespitosum*  
Geranium: Wild

*Gilia aggregata (syn: Ipomopsis)*  
Gilia

*Grindelia squarrosa*  
Gumweed

*Heterotheca villosa (syn: Chrysopsis)*  
Aster: Golden

*Liatris punctata*  
Gayfeather: Dotted

*Mentzelia oligosperma*  
Blazing Star

*Mirabilis multiflora*  
Four O'Clock:Desert

*Penstemon: eatonii, angustifolia, barbatus*  
Firecracker, Narrow-leaf, Scarlet Bugler

*Physaria acutifolia*  
Bladderpod

*Sedum lanceolatum*  
Stonecrop

*Sphaeralcea coccinea*  
Mallow: Copper

*Thelesperma spp.*  
Green Thread/Showy Navajo Tea

*Wyethia amplexicaulis, W. arizonica*  
Mule's Ears

*Zinnia grandiflora*  
Zinnia: Wild

**Grasses**

*Agropyron smithii*  
Wheatgrass

*Andropogon gerardii*  
Bluestem: Big

*Blepharoneuron tricholepis*  
Dropseed: Pine

*Bouteloua curtipendula*  
Grama: Sideoats

*Bouteloua gracilis*  
Grama: Blue

*Bromus marginatus*  
Brome: Mountain

*Hilaria jamesii*  
Galleta

*Koeleria macrantha*  
Junegrass

*Muhlenbergia montana*  
Muhly: Mountain

*Oryzopsis hymenoides*  
Ricegrass: Indian

*Poa fendleri*  
Muttongrass

*Poa secunda*  
Bluegrass: Curly

*Stipa comata*  
Needle-and-thread

*Stipa neomexicana*  
Feathergrass



## Prairie

This grassland community comprises the greatest land area in Colorado Springs. Historic changes brought on by extensive overgrazing, large-scale agriculture, and urban expansion have caused irreparable damage. The prairie stretches from north of Briargate and south to the Colorado Springs airport, east to the City limits, and west to the toe of the foothills where it mingles with other plant communities.

### Climate:

Elevation is approximately 5500 - 6300'. Average annual precipitation ranges from 16 - 19". Climate generally consists of dry conditions, extreme winter weather, desiccating winds, and warm, sunny summers.

### Characteristic Composition:

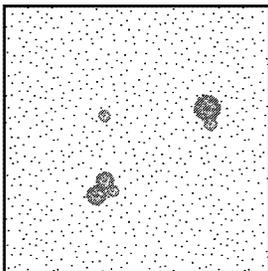
The prairie is comprised of approximately 75 - 90% cool and warm season grasses, dominated by short grasses with taller species occurring in the uplands and moist bottomlands. Forbs and wildflowers complete the prairie. This community typically occurs on rolling plains and flat-topped mesas and transitions into other plant communities in fingers along south and south-west-facing slopes.

### Soils:

Sites are commonly sandy and silty to somewhat cobbly and clayey.

### Characteristic Pattern:

The typical pattern of prairie lands is one of uniformly occurring grasses and forbs with scattered shrubs.



### Trees

Absence of trees

### Shrubs

*Amorpha fruticosa*  
Indigo Bush

*Artemisia filifolia*  
Sagebrush: Sand

*Atriplex gardneri*  
Saltbush: Silverscale

*Atriplex canescens*  
Saltbush: Four-wing

*Chrysothamnus nauseosus*  
Rabbitbrush

*Chrysothamnus viscidiflorus*  
Rabbitbrush: Green

*Coryphantha vivipara*  
Cactus: Spiny Star

*Echinocereus viridiflorus*  
Cactus: Hedgehog

*Eurotia lanata* (syn: *Ceratoides*)  
Winterfat

*Gutierrezia sarothrae*  
Snakeweed: Broom

*Opuntia imbricata*  
Cactus: Cholla

*Opuntia* spp.  
Cactus: Prickly-pear

*Rhus aromatica*  
Sumac: Fragrant

*Rhus trilobata*  
Sumac: Three-leaf, Skunkbush

*Sarcobatus vermiculatus*  
Greasewood

*Seriphidium tridentatum* (syn:  
*Artemisia tridentata*)  
Sagebrush: Big

*Yucca glauca*  
Yucca: Narrow-leaf

### Wildflowers

*Abronia fragrans*  
Prairie Snowball

*Argemone polyanthemus*  
Poppy: Prickly

*Artemisia frigida*  
Sage: Fringed

*Artemisia ludoviciana*  
Sage: Prairie

*Aster ericoides*  
Aster: Sand

*Callirhoe involucrata*  
Mallow: Poppy

*Castilleja integra*  
Paintbrush

*Cleome serrulata*  
Bee Plant: Rocky Mountain

*Dalea purpurea* (syn: *Petalostemum*)  
Clover: Purple Prairie

*Delphinium nuttallianum*  
Larkspur: Nuttalls

*Erigeron speciosus*  
Fleabane: Showy

*Gaillardia aristata*  
Blanketflower

*Gaura coccinea*  
Gaura: Scarlet

*Geranium caespitosum*  
Geranium: Wild

*Helianthus annuus*  
Sunflower: Common

*Ipomea leptophylla*  
Morning Glory: Bush

*Leucocrinum montanum*  
Lily: Sand

*Liatris punctata*  
Gayfeather: Dotted

*Linum perenne lewisii*  
Flax: Blue

*Lupinus argenteus*  
Lupine: Silky

*Nuttallia nuda*  
Blazing Star

*Oenothera howardii*  
Evening Primrose: Yellow

*Oenothera villosa*  
Evening Primrose: White

*Oxytropis lambertii*  
Locoweed: Lambert's

*Penstemon angustifolia*  
Penstemon: Narrow-leaf

*Penstemon albidus*  
Penstemon

- Ratibida columnifera*  
Coneflower: Prairie
- Rumex venosus*  
Sand-begonia
- Solidago nana*  
Goldenrod
- Sphaeralcea coccinea*  
Mallow: Copper
- Thelesperma spp.*  
Green Thread/Showy Navajo Tea
- Townsendia hookeri*  
Daisy: Easter
- Tradescantia occidentalis*  
Spiderwort
- Zinnia grandiflora*  
Zinnia: Wild
- Grasses**
- Agropyron cristatum*  
Wheatgrass: Crested
- Agropyron smithii*  
Wheatgrass: Western
- Agropyron spicatum*  
Wheatgrass: Bluebunch
- Andropogon gerardii*  
Bluestem: Big
- Bouteloua curtipendula*  
Grama: Side-oats
- Bouteloua gracilis*  
Grama: Blue
- Bouteloua hirsuta*  
Grama: Hairy
- Buchloe dactyloides*  
Buffalo
- Calamovilfa longifolia*  
Sandreed: Prairie
- Critesion jubatum*  
Foxtail-barley
- Distichlis spicata*  
Saltgrass
- Eragrostis trichodes*  
Sand Lovegrass
- Hilaria jamesii*  
Galleta
- Koeleria pyramidata*  
Junegrass

- Muhlenbergia pungens*  
Muhly: Sandhill
- Muhlenbergia torreyi*  
Muhly: Ring
- Oryzopsis hymenoides*  
Ricegrass: Indian
- Panicum virgatum*  
Switchgrass
- Poa secunda*  
Bluegrass: Curly
- Redfieldia flexuosa*  
Blowout
- Schizachyrium scoparium*  
Bluestem: Little
- Sitonia hystrix*  
Squirreltail
- Sorghastrum nutans*  
Indiangrass
- Spartina pectinata*  
Cordgrass: Prairie
- Sporobolus airoides*  
Sacaton: Alkali
- Sporobolus cryptandrus*  
Dropseed: Sand
- Stipa comata*  
Needle-and-thread



## Lower Elevation Riparian

Lower elevation riparian communities occur along drainage ways, creeks, and bodies of water throughout all lower elevations. Typical of these riparian areas are Monument, Fountain, Kettle, and Sand Creeks, which are major drainage corridors for Colorado Springs. The bodies of water can be either ephemeral or continuously flowing and occur in urban sites throughout the City, including the lower slopes of the foothills.

### Climate:

Elevation is approximately 5500 - 6200'. Where water occurs continuously during the summer months, there is more humidity and shade than in non-riparian communities. The microclimate tends to be more moderate than other communities.

### Characteristic Composition:

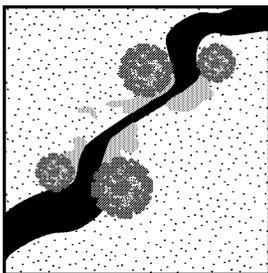
This is a rich ecosystem for wildlife, with vegetation providing habitats for many different species. Deciduous woodland tree species flourish near the water's edge, with a complex understory of shrubs, vines, forbs, and grasses present. In more exposed sites, intermittent tree and shrub groves are more characteristic.

### Soils:

Sites are commonly on a wide range of soils, from isolated salt flats and areas of saline overflow, to loamy or sandy plains and bottomlands.

### Characteristic Pattern:

The clustering of shrub and tree species near the edge of the water is the most distinctive aspect of the pattern. Species may vary considerably depending on how disturbed the site is.



### Trees

- Acer negundo*  
Boxelder
- Betula occidentalis*  
Birch: Western
- Celtis occidentalis*  
Hackberry
- Celtis reticulata*  
Hackberry: Netleaf
- Eleagnus angustifolia*  
Russian Olive
- Fraxinus pennsylvanica*  
Ash: Green
- Populus x acuminata*  
Cottonwood: Lanceleaf
- Populus angustifolia*  
Cottonwood: Narrow-leaf
- Populus deltoides*  
Cottonwood: Common
- Populus fremontii*  
Cottonwood: Fremont
- Populus sargentii*  
Cottonwood: Plains
- Robinia pseudoacacia*  
Locust: Black
- Salix amygdaloides*  
Willow: Peach-leaved
- Ulmus pumila*  
Elm: Siberian

### Shrubs

- Amelanchier canadensis*  
Serviceberry: Shadblow
- Amorpha fruticosa*  
Indigo Bush
- Cornus stolonifera*  
Dogwood: Red-osier
- Parthenocissus quinquefolia*  
Virginia Creeper
- Parthenocissus vitacea*  
Thicket Creeper
- Prunus americana*  
Plum: American
- Prunus besseyi*  
Cherry: Sand
- Prunus pensylvanica*  
Cherry: Pin

*Prunus virginiana melanocarpa*  
Chokecherry

*Rhus aromatica*  
Sumac: Fragrant

*Rhus trilobata*  
Sumac: Three-leaf

*Robinia neomexicana*  
Locust: New Mexican

*Ribes aureum*  
Currant: Golden

*Ribes cereum*  
Currant: Wax

*Ribes inerme*  
Gooseberry

*Rosa woodsii*  
Rose: Woods

*Rubus deliciosus*  
Raspberry: Boulder

*Rubus idaeus*  
Raspberry: Red

*Rubus parviflorus*  
Thimbleberry

*Salix exigua*  
Willow: Coyote

*Salix fragilis*  
Willow: Crack

*Sambucus caerulea*  
Elder: Blue

*Shepherdia argentea*  
Buffaloberry: Silver

*Symphoricarpos albus*  
Snowberry: Common

*Symphoricarpos oreophilus*  
Snowberry: Mountain

*Vitis riparia*  
Grape: Wild

### Wildflowers

*Alisma triviale* (syn: *A. plantago-aquatica*)  
Water-plantain

*Allium cernuum*  
Onion: Nodding

*Apocynum cannabinum*  
Dogbane

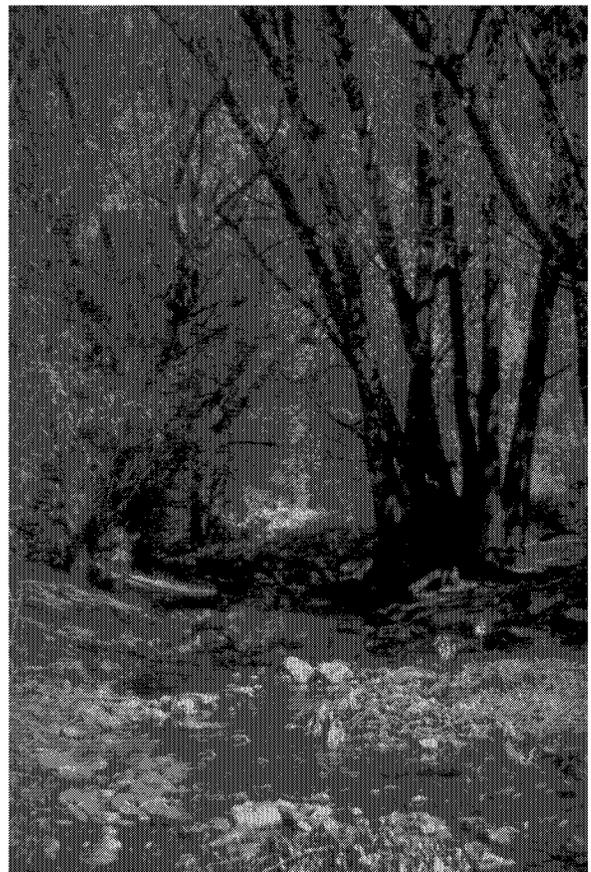
*Arctium minus*  
Burdock

- Asclepias speciosa*  
Milkweed: Showy
- Asclepias incarnata*  
Milkweed: Swamp
- Asparagus officinalis*  
Asparagus: Wild
- Campanula rotundifolia*  
Harbell, Bluebells of Scotland
- Geranium viscosissimum*  
Geranium: Wild
- Glycyrrhiza lepidota*  
Licorice: Wild
- Helianthus nuttallii*  
Sunflower
- Iris missouriensis*  
Iris: Rocky Mountain
- Lemna turionifera*  
Duckweed
- Linaria vulgaris*  
Toadflax
- Monarda fistulosa*  
Bee Balm: Wild
- Potamogeton spp.*  
Pondweed
- Potentilla rivalis*  
Cinquefoil
- Ranunculus repens*  
Buttercup
- Rudbeckia hirta*  
Black-eyed Susan
- Sagittaria latifolia*  
Arrowhead
- Solidago canadensis*  
Goldenrod

**Grasses and Grass-like Plants**

- Agrostis stolonifera*  
Red-top
- Agropyron cristatum*  
Wheatgrass: Crested
- Agropyron smithii*  
Wheatgrass: Western
- Carex nebrascensis*  
Sedge: Nebraska
- Critesion jubatum*  
Foxtail-barley

- Distichlis spicata*  
Saltgrass
- Eleocharis palustris*  
Spike-rush
- Glyseria grandis*  
Manna
- Hilaria jamesii*  
Galleta
- Leersia oryzoides*  
Cutgrass
- Panicum obtusum*  
Vine-mesquite
- Panicum virgatum*  
Switchgrass
- Phragmites communis*  
Reed-phragmites
- Scirpus microcarpus (syn: Schoenoplectus)*  
Bulrush
- Sorghastrum nutans*  
Indiangrass
- Sparangium spp.*  
Bur-reed
- Typha angustifolia*  
Cat-tail: Narrow-leaved
- Typha latifolia*  
Cat-tail: Broad-leaved



## Foothill Shrublands

The foothill shrublands community forms a long discontinuous band running north and south along the base of Pikes Peak and Rampart Range on the City's western limits. This community provides strong fall color and a complexity of vegetation and wildlife. It is evident in neighborhoods from Broadmoor Bluffs through the westside, and north to Rockrimmon and the United States Air Force Academy.

### Climate:

The elevation is approximately 5800 - 7000'. A semiarid climate predominates, with intense summer sun, wide temperature fluctuations, and high winds. It has more naturally occurring moisture than lower non-riparian areas.

### Characteristic Composition:

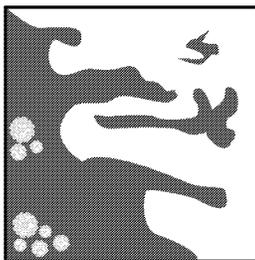
Gambel oak, mountain mahogany, and three-leaf sumac are characteristic species of the foothill shrublands. A wide variety of shrubs, forbs, grassy meadows, and scattered ponderosa pine and junipers are also present.

### Soil:

Sites are commonly shallow and coarse-textured, gravelly to loamy, with some clayey areas.

### Characteristic Pattern:

At lower elevations, the pattern reflects a preference for breaks and north-facing slopes and ridges. At the upper range, it is found on northwest and northeast slopes. The finger-like pattern reflects a mingling of dense thickets of many shrub species and trees scattered throughout. Terrain and slope aspect influence the pattern, and individual species may grow in response to available moisture and sun/shade tolerances.



### Trees

- Acer glabrum*  
Maple: Rocky Mountain
- Fraxinus pennsylvanica*  
Ash: Green
- Betula occidentalis*  
Birch: Western
- Crataegus erythropoda*  
Hawthorn
- Crataegus macrantha*  
Hawthorn: Redhaw
- Juniperus monosperma*  
Juniper: One-seed
- Juniperus scopulorum*  
Juniper: Rocky Mountain
- Populus angustifolia*  
Cottonwood: Narrowleaf
- Prunus americana*  
Plum: American
- Robinia neomexicana*  
Locust: New Mexican
- Ulmus pumila*  
Elm: Siberian

### Shrubs

- Amelanchier alnifolia*  
Serviceberry: Saskatoon
- Amelanchier canadensis*  
Serviceberry: Shadblow
- Amelanchier utahensis*  
Serviceberry: Utah
- Amorpha canescens*  
Leadplant
- Amorpha fruticosa*  
Indigo Bush
- Artemisia filifolia*  
Sagebrush: Sand
- Atriplex canescens*  
Saltbush: Four-wing
- Atriplex confertifolia*  
Saltbush: Spiny
- Ceanothus fendleri*  
Buckbrush: Fendler's
- Cercocarpus ledifolius*  
Mahogany: Curl-leaf
- Cercocarpus montanus*  
Mahogany: Mountain
- Chrysothamnus depressus*  
Rabbitbrush
- Chrysothamnus nauseosus*  
Rabbitbrush
- Clematis ligusticifolia*  
Virgin's Bower
- Cowania mexicana*  
Cliffrose: Mexican
- Echinocereus viridiflorus*  
Cactus: Hedgehog

- Eleagnus commutata*  
Silverberry
- Eurotia lanata* (syn: *Ceratoides*)  
Winterfat
- Fallugia paradoxa*  
Apache Plume
- Forestiera neomexicana*  
Privet: New Mexican
- Holodiscus dumosus*  
Mountain Spray
- Jamesia americana*  
Waxflower
- Lonicera tatarica*  
Honeysuckle
- Mahonia repens*  
Grapeholly: Creeping
- Opuntia polyacantha*, *O. macrorhiza*  
Cactus: Prickly-pear
- Parthenocissus quinquefolia*  
Virginia Creeper
- Parthenocissus vitacea*  
Thicket Creeper
- Pediocactus simpsonii*  
Cactus: Mountain Ball
- Physocarpus monogynus*  
Ninebark: Mountain
- Physocarpus opulifolius*  
Ninebark: Common
- Potentilla fruticosa*  
Potentilla: Shrubby
- Prunus besseyi*  
Cherry: Sand
- Prunus pensylvanica*  
Cherry: Pin
- Prunus virginiana melanocarpa*  
Chokecherry
- Purshia tridentata*  
Antelope Bitterbrush
- Quercus gambelii*  
Oak: Gambel's
- Rhamnus cathartica*  
Buckthorn: Common
- Rhus aromatica*  
Sumac: Fragrant
- Rhus glabra*  
Sumac: Smooth
- Rhus glabra cismontana*  
Sumac: Rocky Mountain
- Rhus trilobata*  
Sumac: Three-leaf
- Rhus typhina*  
Sumac: Staghorn
- Ribes aureum*  
Currant: Golden
- Ribes cereum*  
Currant: Wax

*Ribes inerme*  
Gooseberry

*Rosa woodsii*  
Rose: Woods

*Rubus deliciosus*  
Raspberry: Boulder

*Rubus idaeus ssp. melanolasius*  
Raspberry: Wild

*Rubus parviflorus*  
Thimbleberry

*Seriphidium canum* (syn: *Artemisia cana*)  
Sagebrush: Silver

*Seriphidium tridentatum* (syn: *Artemisia tridentata*)  
Sagebrush: Big

*Shepherdia canadensis*  
Buffaloberry: Canada

*Symphoricarpos oreophilus*  
Snowberry: Mountain

*Yucca glauca*  
Yucca: Narrow-leaf

**Wildflowers**

*Achillea lanulosa*  
Yarrow: Wild

*Allium textile*  
Onion: Wild

*Antennaria parvifolia*  
Pussytoes

*Argemone polyanthemus*  
Poppy: Prickly

*Artemisia ludoviciana*  
Sage: Prairie

*Artemisia frigida*  
Sage: Fringed

*Asclepias tuberosa*  
Butterfly-weed

*Asparagus officinalis*  
Asparagus: Wild

*Aster porteri*  
Aster: Porter

*Astragalus argophyllus*, *A. purshii*  
Milkvetch

*Brickellia grandiflora*  
Brickellia

*Calochortus gunnisonii*  
Lily: Mariposa, Sego

*Campanula rotundifolia*  
Harebell, Bluebells of Scotland

*Castilleja spp.*  
Paintbrush

*Claytonia lanceolata*  
Spring Beauty

*Erigeron spp.*  
Daisy: Fleabane

*Erigonum jamesii*  
Buckwheat: James

*Erigonum umbellatum*  
Sulphur Flower

*Erysimum asperum*  
Wallflower: Western

*Gaillardia aristata*  
Blanketflower

*Gaura coccinea*  
Gaura: Scarlet

*Gentiana affinis*  
Gentian: Prairie

*Geranium caespitosum*  
Geranium: Wild

*Gilia aggregata* (syn: *Ipomopsis*)  
Gilia

*Heterotheca villosa* (syn: *Chrysopsis*)  
Aster: Golden

*Liatris punctata*  
Gayfeather: Dotted

*Linum perenne lewisii*  
Flax: Blue

*Lithospermum multiflorum*  
Puccoon

*Lupinus argenteus*  
Lupine: Silky

*Oenothera caespitosa*  
Evening Primrose: White

*Oxytropis lambertii*  
Locoweed: Lambert's

*Penstemon spp.*  
Penstemon

*Potentilla hippiana*  
Potentilla: Silver

*Sedum lanceolatum*  
Stoncrop

*Solidage missouriensis*  
Goldenrod

*Sphaeralcea coccinea*  
Mallow: Copper

*Stanleya pinnata*  
Prince's Plume

*Wyethia amplexicaulis*  
Mule's Ears

**Grasses and Grass-like Plants**

*Agropyron cristatum*  
Wheatgrass: Crested

*Agropyron smithii*  
Wheatgrass: Western

*Agropyron spicatum*  
Wheatgrass: Bluebunch

*Agropyron trachycaulus*  
Wheatgrass: Slender

*Bouteloua curtipendula*  
Gramma: Side-oats

*Boutelous gracilis*  
Gramma: Blue

*Calamovilfa longifolia*  
Sandreed: Prairie

*Carex geyeri*  
Sedge: Elk

*Carex heiphila*  
Sedge

*Festuca thurberi*  
Fescue: Thurber

*Muhlenbergia montana*  
Muhly: Mountain

*Oryzopsis hymenoides*  
Ricegrass: Indian

*Poa fendleriana*  
Mutton

*Poa secunda*  
Bluegrass: Curly

*Schizachyrium scoparium*  
Bluestem: Little

*Sorghastrum nutans*  
Indiangrass



## Ponderosa Pine Forest

The ponderosa pine community occurs in a broad, irregular transition zone, generally above the piñon-juniper woodlands. It stretches from slopes near the Broadmoor, west to Garden of the Gods; north to the United States Air Force Academy, and east to the Black Forest north of Colorado Springs. This community is also present in Palmer Park and parts of Rockrimmon, and intermingles with the Douglas-fir forest in the upper reaches along the western edge of the City.

### Climate:

Elevation is approximately 6000 - 7500'. Climate is fairly dry, with a shorter growing season in the higher elevations.

### Characteristic Composition:

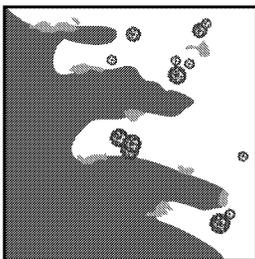
Ponderosa pine communities grow in varying patterns, from almost pure stands or in combination with a very dense understory of shrubs, grasses, and forbs. Ponderosa pines tend to favor south-facing slopes and open parks, though this varies depending on location. In Colorado Springs, they are found on all slopes.

### Soils:

Sites are commonly gravelly, rocky, shallow, and fast-draining.

### Characteristic Pattern:

The pattern reflects a combination of dense stands and fingers of openly spaced pines. They extend along south- and west-facing slopes, mingling with grassy meadows and shrublands. Associated tree species are scattered among the pines.



### Trees

- Abies concolor*  
Fir: White
- Acer glabrum*  
Maple: Rocky Mountain
- Juniperus monosperma*  
Juniper: One-seed
- Juniperus scopulorum*  
Juniper: Rocky Mountain
- Picea pungens*  
Spruce: Blue
- Pinus edulis*  
Pine: Piñon
- Pinus flexilis*  
Pine: Limber
- Pinus ponderosa*  
Pine: Ponderosa
- Pinus strobiformis*  
Pine: Southwestern White
- Populus tremuloides*  
Aspen: Quaking
- Pseudotsuga menziesii*  
Douglas-fir

### Shrubs

- Arctostaphylos uva-ursi*  
Kinnikinnick
- Ceanothus fendleri*  
Buckbrush: Fendler's
- Cercocarpus montanus*  
Mahogany: Mountain
- Echinocereus viridiflorus*  
Cactus: Hedgehog
- Holodiscus dumosus*  
Mountain Spray
- Jamesia americana*  
Waxflower
- Juniperus communis*  
Juniper: Common
- Lonicera involucrata*  
Twinberry
- Lonicera tatarica*  
Honeysuckle
- Mahonia repens*  
Grapeholly
- Physocarpus opulifolius*  
Ninebark: Common
- Potentilla fruticosa*  
Potentilla: Shrubby
- Prunus americana*  
Plum: American
- Prunus pensylvanica*  
Cherry: Pin

- Prunus virginiana melanocarpa*  
Chokecherry
  - Purshia tridentata*  
Antelope Bitterbrush
  - Quercus gambelii*  
Oak: Gambel's
  - Rhus aromatica*  
Sumac: Fragrant
  - Rhus glabra*  
Sumac: Smooth
  - Rhus glabra cismontana*  
Sumac: Rocky Mountain
  - Rhus trilobata*  
Sumac: Three-leaf
  - Ribes aureum*  
Currant: Golden
  - Ribes cereum*  
Currant: Wax
  - Ribes inerme*  
Gooseberry
  - Rhus typhina*  
Sumac: Staghorn
  - Robinia neomexicana*  
Locust: New Mexican
  - Rosa woodsii*  
Rose: Woods
  - Rubus idaeus ssp. melanolasius*  
Raspberry: Wild
  - Rubus deliciosus*  
Raspberry: Boulder
  - Seriphidium tridentatum* (syn: *Artemisia tridentata*)  
Sagebrush: Big
  - Sheperdia canadensis*  
Buffaloberry: Canada
  - Yucca glauca*  
Yucca: Narrow-leaf
- ### Wildflowers
- Achillea lanulosa*  
Yarrow: Wild
  - Allium cernuum*  
Onion: Nodding
  - Allium previstylum*  
Onion: Wild
  - Antennaria rosea*  
Pussytoes: Rose
  - Aquilegia caerulea*  
Columbine: Rocky Mountain
  - Aquilegia chrysantha*  
Columbine: Golden Spur
  - Argemone polyanthemus*  
Poppy: Prickly

*Artemisia ludoviciana*  
Sage: Prairie

*Artemisia frigida*  
Sage: Fringed

*Astragalus argophyllus*, *A. purshii*  
Milkvetch

*Besseyia plantaginea*  
Kittentails

*Campanula rotundifolia*  
Harebell, Bluebells of Scotland

*Castilleja linariifolia*  
Paintbrush

*Cleome serrulata*  
Bee Plant: Rocky Mountain

*Corallorhiza maculata*  
Orchid: Coralroot

*Corydalis aurea*  
Golden Smoke

*Delphinium nuttallianum*  
Larkspur: Nuttall's

*Epilobium angustifolium*  
Fireweed

*Erigeron spp.*  
Daisy: Fleabane

*Erigonum jamesii*  
Buckwheat: James

*Erigonum umbellatum*  
Sulphur Flower

*Erysimum asperum*  
Wallflower: Western

*Fragaria vesca* (syn: *F. americana*)  
Strawberry: Wild

*Galium boreale*  
Bedstraw: Northern

*Geranium viscosissimum*, *G. caespitosum*  
Geranium: Wild

*Grindelia squarrosa*  
Gumweed

*Heterotheca villosa* (syn: *Chrysopsis*)  
Aster: Golden

*Iris missouriensis*  
Iris: Rocky Mountain

*Lesquerella montana*  
Bladderpod

*Leucocrinum montanum*  
Lily: Sand

*Linum perenne lewisii*  
Flax: Blue

*Lupinus argenteus*  
Lupine: Silky

*Lupinus parviflorus*  
Lupine: Lodgepole

*Mentzelia oligosperma*  
Blazing Star

*Mertensia lanceolata*  
Chiming Bells

*Oenothera caespitosa*  
Evening Primrose: White

*Oreocarya virgata*  
Miner's Candle

*Oxytropis sericea*  
Locoweed: Rocky Mountain

*Oxytropis splendens*  
Locoweed: Showy

*Penstemon spp.*  
Penstemon

*Phacelia hastata*  
Scorpionweed

*Potentilla fissa*, *P. gracilis*  
Potentilla

*Pterospora andromedea*  
Pinedrops

*Pulsatilla patens* (syn: *Anemone*)  
Pasque Flower

*Senecio integerrimus*  
Groundsel, Senecio

*Scutellaria brittonii*  
Skullcap

*Smilacina racemosa*  
Solomon's Seal: False

*Swertia perennis*  
Star Gentian

*Thermopsis montana*, *T. divaricarpa*  
Golden Banner

*Townsendia hookeri*  
Daisy: Easter

**Grasses and Grass-like Plants**

*Agropyron trachycaulus*  
Wheatgrass: Slender

*Agropyron smithii*  
Wheatgrass: Western

*Blepharoneuron tricholepis*  
Dropseed: Pine

*Bromus marginatus*  
Brome: Mountain

*Carex spp.*  
Sedge

*Danthonia parryi*  
Oatgrass: Parry's

*Elymus glaucus*  
Wild-rye: Blue

*Festuca idahoensis*  
Fescue: Idaho

*Festuca thurberi*  
Fescue: Thurber

*Koeleria pyramidata*  
Junegrass

*Muhlenbergia montana*  
Muhly: Mountain

*Poa fendleriana*  
Mutton-grass

*Stipa columbiana*  
Needle: Columbia

*Trisetum spicatum*  
Trisetum: Spike



## Upper Elevation Riparian

The upper elevation riparian community occurs in a limited area of Colorado Springs at the upper reaches of the foothills, along the western edge of the City. It consists of streams, ponds, and lakes; along ravines and gulches on north-facing slopes; south-facing protected washes; and at the base of terraces or in pockets of cold air drainages.

### Climate:

Elevation is approximately 6200 - 7500'. Annual precipitation and snow cover is greater than many other areas of Colorado Springs. This community has a short growing season.

### Characteristic Composition:

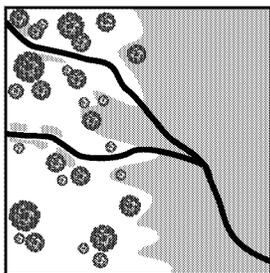
These riparian communities consist of a variety of moisture-loving trees and shrubs, with many of the same species that occur at lower elevation riparian communities.

### Soils:

Sites are commonly gravelly, occasionally loamy.

### Characteristic Pattern:

The vegetation occurs in canopy and understory layers scattered along drainage ways and bodies of water.



### Trees

- Abies concolor*  
Fir: White
- Abies lasiocarpa*  
Fir: Subalpine
- Acer grandidentatum*  
Maple: Canyon
- Acer negundo*  
Boxelder
- Alnus tenuifolia*  
Alder: Mountain
- Amelanchier utahensis*  
Serviceberry: Utah
- Betula fontinalis*  
Birch: River
- Betula occidentalis*  
Birch: Western
- Celtis occidentalis*  
Hackberry
- Corylus cornuta*  
Hazelnut: Beaked
- Eleagnus angustifolia*  
Russian Olive
- Fraxinus pennsylvanica*  
Ash: Green
- Picea pungens*  
Spruce: Colorado Blue
- Pinus ponderosa*  
Pine: Ponderosa
- Populus x acuminata*  
Cottonwood: Lanceleaf
- Populus angustifolia*  
Cottonwood: Narrowleaf
- Populus balsamifera*  
Poplar: Balsam
- Populus sargentii*  
Cottonwood: Plains
- Pseudotsuga menziesii*  
Douglas-fir
- Salix amygdaloides*  
Willow: Peach-leaf
- Sorbus scopulina*  
Ash: Mountain

### Shrubs

- Acer glabrum*  
Maple: Rocky Mountain

- Amelanchier alnifolia*  
Serviceberry: Saskatoon
- Amelanchier canadensis*  
Serviceberry: Shadblow
- Betula glandulosa*  
Birch: Bog
- Clematis ligusticifolia*  
Virgin's Bower
- Cornus stolonifera* (syn: *C. sericea*)  
Dogwood: Red-osier
- Crataegus erythropoda*  
Hawthorn
- Lonicera involucrata*  
Twinberry
- Lonicera tatarica*  
Honeysuckle
- Parthenocissus quinquefolia*  
Virginia Creeper
- Parthenocissus vitacea*  
Thicket Creeper
- Potentilla fruticosa*  
Potentilla: Shrubby
- Prunus americana*  
Plum: American
- Prunus pensylvanica*  
Cherry: Pin
- Prunus virginiana melanocarpa*  
Chokecherry
- Quercus gambelii*  
Oak: Gambel's
- Ribes aureum*  
Currant: Golden
- Ribes inerme*  
Gooseberry: Common
- Rhus glabra*  
Sumac: Smooth
- Rhus glabra cismontana*  
Sumac: Rocky Mountain
- Robinia neomexicana*  
Locust: New Mexican
- Rosa woodsii*  
Rose: Woods
- Rubus deliciosus*  
Raspberry: Boulder
- Rubus parviflorus*  
Thimbleberry

*Salix exigua*  
Willow: Coyote

*Salix lutea*  
Willow: Yellow

*Sambucus caerulea*  
Elder: Blue

*Shepherdia argentea*  
Buffaloberry: Silver

*Symphoricarpos oreophilus*  
Snowberry: Mountain

*Ulmus pumila*  
Elm: Siberian

**Wildflowers**

*Aconitum columbianum*  
Monkshood

*Allium cernuum*  
Onion: Nodding

*Allium schoenoprasum*  
Chives: Wild

*Apocynum androsaemilifolium*  
Dogbane

*Aquilegia caerulea*  
Columbine: Rocky Mountain

*Aquilegia chrysantha*  
Columbine: Golden Spur

*Aster laevis*  
Aster: Smooth

*Cardamine cordifolia*  
Bittercress

*Delphinium occidentale*  
Larkspur: Tall Mountain

*Dodecatheon pulchellum*  
Shootingstar: Western

*Epilobium angustifolia*  
Fireweed

*Fragaria vesca (syn: F. americana)*  
Strawberry: Wild

*Gentiana amarella*  
Gentian: Rose

*Geranium richardsonii*  
Geranium: Richardson's

*Habenaria hyperborea*  
Orchid: Northern Bog

*Heracleum spondylium, H. lanatum*  
Cow Parsnip

*Iliamna rivularis*  
Globemallow: Streambank

*Iris missouriensis*  
Iris: Rocky Mountain

*Menyanthes trifoliata*  
Trefoil: Marsh

*Mertensia ciliata*  
Chiming Bells

*Mimulus guttatus*  
Monkey-flower

*Nuphar luteum ssp. polysepalum*  
Pondlily: Yellow

*Parnassia parviflora*  
Grass-of-Parnassus

*Potamogeton filiformis*  
Pondweed

*Ranunculus cardiophyllus*  
Buttercup: Heart-leaved

*Rudbeckia hirta*  
Black-eyed Susan

*Rudbeckia laciniata*  
Coneflower: Tall

*Senecio triangularis*  
Senecio: Arrow-leaf

*Sidalcea candida*  
Checkermallow: White

*Smilacina racemosa*  
Solomon's Seal: False

*Streptopus fassettii*  
Twisted Stalk

*Swertia perennis*  
Star Gentian

*Thalictrum fendleri*  
Meadowrue

*Trifolium parryi*  
Clover: Parry's

*Trollius albiflorus*  
Globeflower

**Grasses and Grass-like Plants**

*Agrostis scabra*  
Ticklegrass

*Calamagrostis canadensis*  
Reedgrass: Canada

*Carex spp.*  
Carex

*Deschampsia caespitosa*  
Hairgrass: Tufted

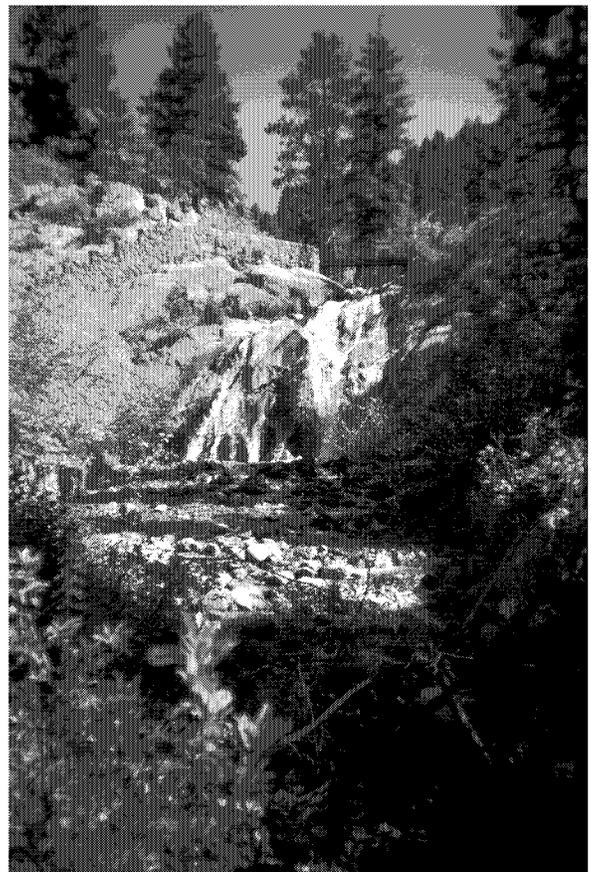
*Equisetum variegatum*  
Horsetail, Scouring-rush

*Hippuris vulgaris*  
Mare's-tail

*Juncus mertensianus*  
Rush: Subalpine

*Poa fenderiana*  
Mutton-grass

*Typha latifolia*  
Cat-tail: Broad-leaved



## Douglas-fir Forest

The Douglas-fir forest community is located along the upper reaches of the ponderosa pine forest, forming a western backdrop for Colorado Springs and Cheyenne Canyon. Only a small fraction of developable land within the City lies in this community.

### Climate:

Elevation is approximately 6500 - 7500'. Climate is cooler than any other community in the City and moister than non-riparian communities.

### Characteristic Composition:

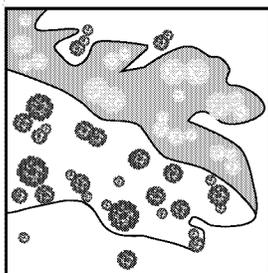
Douglas-fir trees rarely occur in pure stands. More often, they form 40 - 90% of the overstory for this community. They occur in association with ponderosa pine and intermingle with white fir and aspen outside the City limits. There is a mixed understory of shrubs and grasses. Because of its preference for moisture and shade tolerance, Douglas-fir communities can typically be found along north- and east-facing slopes, with an occasional occurrence on south and west slopes.

### Soils:

Sites are commonly loamy.

### Characteristic Pattern:

The most noticeable pattern is this community's preference for north- and east-facing slopes and the denser spacing along the middle and lower sections of the slope. Intermingling ponderosa pine are reflected in this pattern.



### Trees

*Abies concolor*

Fir: White

*Abies lasiocarpa*

Fir: Subalpine

*Juniperus monosperma*

Juniper: One-seed

*Juniperus scopulorum*

Juniper: Rocky Mountain

*Picea engelmannii*

Spruce: Englemann

*Picea pungens*

Spruce: Colorado Blue

*Pinus contorta*

Pine: Lodgepole

*Pinus flexilis*

Pine: Limber

*Pinus ponderosa*

Pine: Ponderosa

*Populus angustifolia*

Cottonwood: Narrowleaf

*Populus tremuloides*

Aspen: Quaking

*Pseudotsuga menziesii*

Douglas-fir

### Shrubs

*Ceanothus fendleri*

Buckbrush: Fendler's

*Ceanothus velutinus*

Sticky-laurel

*Holodiscus dumosus*

Mountain Spray

*Jamesia americana*

Waxflower

*Juniperus communis*

Juniper: Common

*Pachistima myrsinites*

Mountain-lover

*Physocarpus monogynus*

Ninebark

*Prunus pensylvanica*

Cherry: Pin

*Prunus virginiana melanocarpa*

Chokecherry

*Quercus gambelii*

Oak: Gambel's

*Ribes coloradense*

Currant: Colorado

*Ribes inerme*

Gooseberry

*Ribes wolfii*

Currant: Gooseberry

*Rosa woodsii*

Rose: Woods

*Rubus deliciosus*

Raspberry: Boulder

*Rubus idaeus ssp. melanolasius*

Raspberry: Wild

*Rubus parviflorus*

Thimbleberry

*Shepherdia canadensis*

Buffaloberry: Canada

*Sorbus scopulina*

Mountain Ash

*Symphoricarpos oreophilus*

Snowberry: Mountain

### Wildflowers

*Allium cernuum*

Onion: Nodding

*Allium schoenoprasum*

Chives: Wild

*Antennaria parvifolia*

Pussytoes: Mountain

*Aquilegia caerulea*

Columbine: Rocky Mountain

*Arnica cordifolia*

Arnica

*Calypso bulbosa*

Fairy Slipper

*Campanula rotundifolia*

Harebell, Bluebells of Scotland

*Corallorhiza maculata*

Orchid: Northern Coralroot

*Chimaphila umbellata*

Pipsissewa

*Corydalis aurea*

Golden Smoke

*Delphinium occidentale*

Larkspur: Tall Mountain

*Erigeron speciosus*

Fleabane: Showy

*Fragaria vesca* (syn: *F. americana*)  
Strawberry: Wild

*Galium triflorum*  
Bedstraw: Fragrant

*Gentiana parryi*  
Gentian: Mountain

*Geranium richardsonii*  
Geranium: Richardson's

*Gilia aggregata* (syn: *Ipomopsis*)  
Gilia

*Heuchera parvifolia*  
Alumroot: Common

*Heuchera bracteata*  
Alumroot: Bracted

*Iris missouriensis*  
Iris: Rocky Mountain

*Linnaea borealis*  
Twinflower

*Lupinus argenteus*  
Lupine: Silky

*Mertensia ciliata*  
Chiming Bells

*Pedicularis racemosa*  
Lousewort: Mountain

*Penstemon glaber* (syn: *P. alpinus*)  
Penstemon: Alpine

*Penstemon unilateralis*  
Penstemon: One-sided

*Polemonium pulcherrimum*  
Jacob's Ladder

*Potentilla* spp.  
Potentilla

*Pterospora andromedea*  
Pinedrops

*Pulsatilla patens* (syn: *Anemone*)  
Pasque Flower

*Sedum lanceolatum*  
Stonecrop

*Selaginella densa*  
Clubmoss

*Smilacina racemosa*  
Solomon's Seal: False

*Solidago missouriensis*  
Goldenrod

*Stellaria umbellata*  
Chickweed

*Swertia perennis*  
Star Gentian

*Thalictrum fendleri*  
Meadowrue

*Veratrum tenuipetalum*  
Hellebore: False

*Zygadenus elegans*  
Wand-lily

*Zydadenus venenosum*  
Death Camas

**Grasses and Grass-like Plants**

*Agropyron trachycaulus*  
Wheatgrass: Slender

*Agrostis scabra*  
Ticklegrass

*Blepharoneuron tricholepis*  
Dropseed: Pine

*Bromus marginatus*  
Brome: Mountain

*Carex* spp.  
Sedge

*Carex geyeri*  
Sedge: Elk

*Carex stenopylla* ssp. *eleocharis*  
Sedge

*Danthonia intermedia*  
Oatgrass: Timber

*Danthonia parryi*  
Oatgrass: Parry's

*Deschampia caespitosa*  
Hairgrass: Tufted

*Elymus glaucus*  
Wild-rye: Blue

*Festuca idahoensis*  
Fescue: Idaho

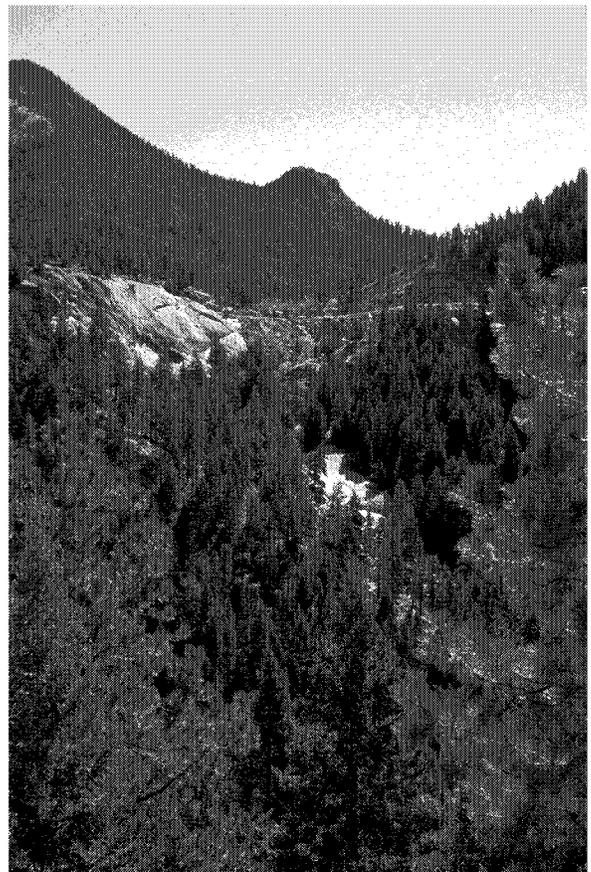
*Festuca thurberi*  
Fescue: Thurber

*Glyceria elata*  
Mannagrass

*Muhlenbergia montana*  
Muhly: Mountain

*Poa fendleriana*  
Mutton-grass

*Stipa columbiana*  
Needle: Columbia



## Other Regional Plant Communities

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The following plant communities do not occur in Colorado Springs but do occur in varying locations throughout Colorado. Brief descriptions are included for each community, reminders of the rich diversity of this area.

### **Semidesert Scrub**

This community is typically found on dry, hard desert soils that are often saline. There is a noticeable absence of trees; precipitation is minimal.

### **Sagebrush Shrublands**

Consisting primarily of sagebrush and other shrubs, soils are less alkaline and saline than the semidesert scrub community. Trees are not present. Where moisture is available, a greater diversity of species occurs.

### **Mountain Grasslands and Subalpine Meadows**

Mountain grasslands occur in the moist upper reaches of ponderosa, Douglas-fir, aspen and Englemann spruce forests. Subalpine meadows occur in open areas and at the edges of lodgepole, bristlecone, and limber pine forests. These grasslands and meadows consist of grasses, wildflowers, and openly spaced trees and shrubs.

### **Aspen Forest**

Aspen forests are succession communities, occurring in moist valleys and slopes at elevations of 7,500 - 11,000'. Pure stands occur or are scattered among evergreen trees. Shrubs, forbs, and grasses form the understory, with intermingling of open meadows common.

### **Englemann Spruce/Subalpine Fir Forests**

This montane community occurs at elevations of 9,000 - 12,000'. They are found on flat land areas, toe slopes, or canyon bottoms, generally on north- and east-facing slopes. Deep soils and moisture are present, and they are important as snow collection areas.

### **Lodgepole Pine Forest**

This community is typical of dry montane slopes at elevations of 8,000 - 11,500'. Lodgepole pines frequently grow in pure stands on south- and west-facing slopes with very little understory present.

Precipitation generally averages more than 20" per year.

### **Bristlecone and Limber Pine Forests**

These forests are common at elevations of 9,000' to timberline. They occur along harsh, exposed, windy, and stoney places. Trees grow singly or in groups, frequently intermingling with aspen and high altitude evergreen trees.

## Resource List

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The following resources are recommend for supplemental information which may be useful in the preparation of landscape and irrigation plans.

- Colorado Springs Xeriscape Demonstration Garden, 2855 Mesa Road, Colorado Springs, CO 80904, (719)448-4555
- Natural Resources Conservation Service, 1826 E. Platte Ave, Colorado Springs, CO 80909, (719)473-7104
- Cooperative Extension Service, 305 S. Union, Colorado Springs, CO 80910, (719)632-8920
- The Rocky Mountain Plant Guide, Colorado Nursery Association, 5290 E. Yale Circle Suite 204, Denver, CO 80222, (303)758-6672
- The Rocky Mountain Perennial Plant Guide, Colorado Nursery Association (same as above)
- Landscape Specifications Handbook, Associated Landscape Contractors of Colorado, 529 E. Yale Circle Suite 100, Denver, CO 80222, (303)757-5611
- Rocky Mountain Horticulture Is Different, George W. Kelly, © 1951, George W. Kelly
- Water Efficient Landscape Guidelines, Bennett and Hazinski, American Water Works Association, 6666 W. Quincy Ave, Denver, CO 80235, (303)347-6225
- Xeriscape Plant Guide, Denver Water, © 1996, Denver Water, 1600 W. 12th Ave, Denver, CO 80254, (303)628-6000
- The Xeriscape Flower Gardener, Jim Knopf, © 1991, Johnson Publishing Co.

### **Supplemental Materials Available from the City of Colorado Springs Planning Department**

The following documents provide more in depth information about the value and diversity of our landscape setting, design considerations, and the larger urban context.

- Colorado Springs City Beautification Plan, December 1997. Mapped for over 41 different visual units of landscape character based on the Bureau of Land Management methods for identifying and protecting scenic resources.
- The Significant Features Inventory. Documents the natural regional features and sets values for preservation.
- The Utilities Landscape Guidelines, 1998. Sets a design direction for water conserving landscapes for Utilities sites. (available from the Water Resources Department)
- The Open Space Plan, 1997. Facilitates management and preservation of valuable naturalistic landscapes and ecological themes.
- The Hillside Overlay and Design Guidelines, 1997. Addresses development in sensitive foothills zones.