

LANDSCAPE REGULATIONS 2004

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City of Westminster Landscape Regulations
Effective Date September 1, 2004
2004 Edition

I. STATEMENT OF INTENT

The purpose of these Landscape Regulations is to provide minimum design, installation and maintenance criteria for landscape elements. The City of Westminster recognizes landscaping as an important component of quality development, resulting in the enhancement of Westminster's character and image as well as providing benefits to the public such as, but not limited to:

- Enhancement of property values
- Improvement of air and water quality
- Reduction of heat, glare, dust and noise
- Buffering or framing views
- Provision of wildlife habitat and living environment
- Seasonal interest and visual enhancement
- Efficient use of water resources

II. APPLICABILITY

These Landscape Regulations have been adopted by the Westminster City Council. All areas to be landscaped shall incorporate the requirements herein. Enforcement of the regulations shall be as provided in Section 1-8-1 of the Westminster Municipal Code.

Landscaping will be required according to the Landscape Regulations in instances as follows:

- In new development.
- In redevelopment, except in cases where there is no modification that increases any aspect of non-conformance with these Regulations nor increase in hardscape area of greater than 500 square feet.
- In existing developments where there is an Official Development Plan or amended Official Development Plan or Official Development Plan waiver that addresses landscaping, and landscaping is proposed to be modified from what was approved.
- In existing non single-family detached developments where there is no Official Development Plan or amended Official Development Plan or Official Development Plan waiver that addresses landscaping, and landscape area or materials are proposed to be modified. Improvements within existing landscape area or materials must occur in a manner that complies with the standards herein or decreases aspects of non-conformance. Landscape area or materials cannot be reduced without City approval. Existing trees on these properties cannot be removed without City approval.
- In existing single-family detached residential development where there is no approved Official Development Plan or amended Official Development Plan or Official Development Plan that addresses landscaping, and landscape area or related requirements is proposed to be modified to less than the standards herein for a new single-family detached lot.

Landscape and irrigation drawings and documents related thereto are required as described in these Regulations.

Rental housing has additional Municipal Code regulations regarding landscaping. Refer to the Municipal Code at 11-12-7.

III. ADJUSTMENT OF REQUIREMENTS

The Planning Manager is authorized to allow an adjustment from the strict application of the landscape and irrigation requirements in cases that involve practical difficulties or unnecessary hardship, provided however, that:

- The adjustment granted is the minimum necessary to alleviate such practical difficulties or undue hardship upon the owner or the property;
- Such relief may be granted without substantial detriment to the public good and without substantially impairing the intent and purpose of these regulations.

In granting an adjustment, the Planning Manager may attach reasonable conditions thereto. The granting of any adjustment shall not constitute or be construed as a precedent, ground or cause for any other adjustment.

Appeals from this section shall be considered by the Planning Commission and shall follow procedure and fees as established by the approval process for Official Development Plans.

In the case of conflict or lack of specifications, the Planning Manager will determine the appropriate regulation.

It is recognized that City projects such as parks, street medians or public utility facilities may have unique requirements for landscaping and will be reviewed on an individual basis. To the extent that City projects are similar in nature to private development projects, the Landscape Regulations will apply.

IV. OTHER REFERENCES

Other documents which should be referenced that are relevant to landscaping include (but are not limited to): the Sitework Specifications; Standards and Specifications for the design and construction of public improvements (in this case, requirements listed for public improvements will apply to landscape related improvements for private improvements); the Single-Family Detached, Single-Family Attached, Multi-Family, and Senior Residential Design Guidelines; the Traditional Mixed Use Neighborhood Developments Design Guidelines; the Retail Commercial Design Guidelines; and any other design guidelines. Other documents, which apply to specific developments, include the Official Development Plan and any referenced guidelines.

Questions concerning the landscaping for City owned and maintained trails, greenbelts and parks, and publicly owned and maintained open space should be directed to the Department of Parks, Recreation and Libraries.

V. CONSIDERATIONS IN LANDSCAPE DESIGN

Prior to design of a new landscape or modifications to an existing landscape, the following landscape design elements must be considered and incorporated into the landscape and irrigation design.

A. WATER CONSERVATION/WATER-WISE LANDSCAPING/XERISCAPING

The Denver Metropolitan area has a semi-arid climate with an average of only fourteen inches of natural precipitation a year. Because landscape design in Colorado often incorporates the use of plants that are native to regions that have higher levels of annual precipitation, supplemental water is necessary to ensure these landscape survive in Colorado.

1. Xeriscape

The concept of xeriscape was developed in Denver in response to water shortages and refers to an attractive landscape that uses little supplemental water. It does not refer to a dry, barren, no-maintenance landscape, without irrigation. The xeriscape concept promotes water-wise/water conservation in landscape design, to result in landscapes within a semi-arid climate that can have seasonal interest, flowers, and greenery.

Xeriscaping incorporates seven water conserving principles. These are as follows:

- **Design** – The water conserving landscape requires careful attention to design. The design is one that identifies and develops zones of different water requirements. Designing with different area of water demands is called “hydrozoning.”
- **Irrigation** – Irrigation is necessary to effectively establish the landscape and to maintain plant life that requires supplemental water on a regular or periodic basis, or in periods of drought. Watering deeply and less frequently will typically result in plants that are deeper rooted and more drought tolerant.
- **Soil Preparation** – Soil preparation is very important to the success of the landscape. Adding organic material (compost) results in soils that will hold moisture longer. Loosening the soil (rototilling) provides water and air infiltration for improved root development.
- **Mulch** – Mulch covers bare soil, reducing evaporation, soil temperature and erosion. This improves plant growth and assists in reducing weeds and their competition for water and nutrients, mulch also makes weeding easier to perform.
- **Appropriate Use of Turf** – Careful consideration of where turf is desired and type of grass used is a major component of xeriscaping. Determine the function of turf in the proposed landscape, and then consider the various grasses, suitability for active use, their growth habits, and maintenance requirements.

- Use of Low Water Plants – Careful plant selection and grouping based upon water requirements, with the goal of conserving water, can result in a landscape design of great beauty and interest. Xeriscaping has increased the popularity of many plants that do not require significant levels of water.
- Maintenance – All landscapes require regular and periodic maintenance. Replacement of mulches, weeding, pruning, mowing, and irrigation adjustment are routine requirements of both the xeriscape and traditional landscape.

2. Specific Water – Wise Landscape Elements

In order to reduce the impact of drought on landscapes, and provide efficiency in the use of water, landscape design will be required to incorporate various water-wise elements. These are as follows:

- Design based upon zones of different water requirements – referred to as “hydrozoning.” Low, moderate, and high hydrozones will be required to be identified on landscape and irrigation plans. Plant choice and irrigation design must reflect the relevant hydrozone requirements.
- Total annual water application by irrigation (water budget) shall not exceed 15 gallons/square foot/year (24 inches).
- Low hydrozones are classified by plantings that generally do not require more than 3 gallons/square foot of supplemental water per year, and plants in this zone generally need lower levels of water to thrive. Although plants in this zone may grow with minimal use of supplemental water, in times of plant establishment or drought, these low water use plants benefit from controlled, supplemental watering. Irrigation methods in this zone will typically be micro-spray or drip. Buffalo grass is a typical grass in this hydrozone.
- Moderate hydrozones are classified by plantings that generally require 10 gallons/square foot of supplemental water per year, and plants in this zone generally need this level of water to thrive. Irrigation methods in this zone will typically be spray heads. Turf-type tall fescue is a typical grass in this zone.
- High hydrozones are classified by plantings that will generally require 18 inches/square foot of supplemental water per year. Plants in this zone generally need this high level of water to thrive. Irrigation methods in this zone will typically be spray or rotor heads. Bluegrass turf is a typical grass in this zone.
- High hydrozones should not be within five-feet of a building foundation to reduce potential problems from expansive soils. In general, for purposes of water conservation, it is desirable to transition to a low water zone adjacent to paved areas.
- Automatic irrigation systems will be required in all landscape areas, and must be installed prior to plant materials. Automatic irrigation systems increase the establishment of plants, allow for regular monitoring of water use and needs, and allow the watering of landscapes with minimal manual involvement. The design

of the irrigation system must reflect hydrozones and various requirements within these regulations.

- Soil preparation, including loosening the soil by rototilling and incorporating compost as a soil amendment, is a minimum requirement in all areas of potential landscaping. A soil analysis indicating existing soil texture, percent of organic material and a measure of PH and soluble salts is recommended to determine what other optional soil improvements may be necessary. (Refer to Section V for specific requirements.)
- Mulching in all non-turf areas of the landscape area is required. Because organic mulches (such as bark) assist in retaining soil moisture, and reduce heat absorption and reflection, organic mulches will be required in moderate and high hydrozones. Inorganic mulch (such as stone) will be allowed only in low water zones.
- Plant selection and location will be required to match the plants' water needs to the appropriate water zone. This design practice enhances the efficient use of water and increases the survival rate and health of plants by reducing over-watering or under-watering of plants.

B. Existing Vegetation

All existing healthy trees of desirable species 4 inch caliper or more must be shown on the landscape plan, and must be preserved or transplanted on the site unless approved otherwise by the City. Grading shall not be permitted within the drip line of trees to be preserved or until after relocation is complete. Tree wells or retaining walls may be used beyond the limits of the drip line of the trees in order to protect the trees if grading does not otherwise accommodate preserving the existing grade. The number of trees to be preserved can be credited toward the total number of trees required for the development. The size of trees that are preserved cannot be applied toward additional required landscaping. Any replacement trees are required to be in excess of the otherwise minimum total number of trees.

Any tree removed shall be replaced on a 2:1 caliper-inch ratio. For example, five 2 ½-inch caliper trees and one 3½-inch caliper tree (16 caliper inches in total) would replace one 8-inch caliper tree (8 caliper inches). Special circumstances may be considered in the total number of trees required for replacement, and off-site planting may be considered in some instances.

C. Canals and Watercourses

Setbacks from canals, irrigation ditches or other watercourses are required to protect existing vegetation and channel banks from development encroachment and to minimize slope failures. These setbacks also maintain access to watercourses for maintenance purposes, preserve trees, and provide land for open space and trails.

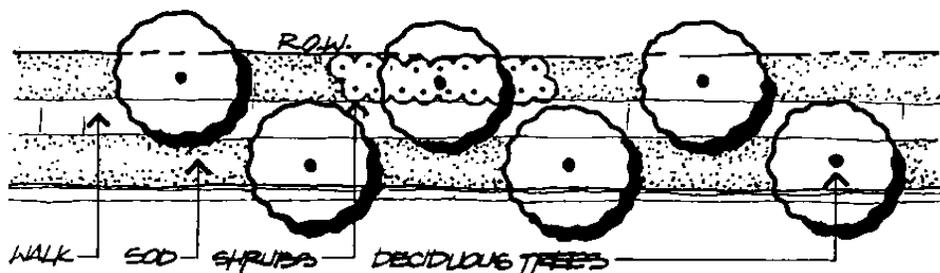
City Council Resolution No. 2 of 1986, requires that the edge of any improvement (grading, paving or trenching) be set back a minimum of 30 feet from the top of bank or right-of-way line, whichever is the furthest from the watercourse. Any structure shall be set back a minimum of 40 feet. Where trees exist within 20 feet of the top of the

watercourse bank, the edge of any improvement shall be set back a minimum of 20 feet from the tree trunk or from a line connecting tree trunks less than 50 feet apart. Any structure shall be set back a minimum of 30 feet from the tree trunks or a line connecting them.

In addition to Resolution No. 2 of 1986, no grading or storage of materials may occur within the drip line of any existing trees to be preserved on a site. The drip line must be fenced prior to and during construction activities. Supplemental watering may be necessary during construction, prior to installation of irrigation systems.

D. Plant Selection and Design

A formal approach to street tree planting and median landscaping is recommended along arterial and collector streets, as this appearance is desired by the City. Formal design incorporates regular spacing of shade trees in a repetitive or predictable pattern. Potential conflicts with pedestrian or vehicular traffic and traffic signage must be taken into account. Planting trees on both sides of the sidewalk is required in order to create a canopy effect and to provide areas of shade for the pedestrian.



TYPICAL STREET LANDSCAPE

Provision of a variety of species is required, as determined by the City. This is necessary not only to provide visual appeal and diversity, but also to limit the impact of diseases and environmental problems that affect different species to varying degrees.

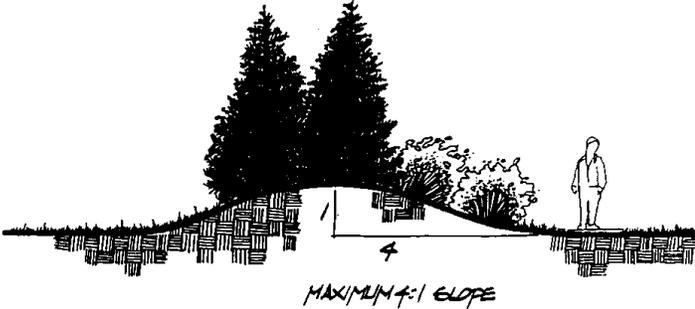
A mix of evergreen and deciduous trees and shrubs is required for a seasonal appearance of greenery throughout the year. Long living, deciduous shade trees (ash, honeylocust, linden, oak, etc.) are preferred and fast-growing trees that are often subject to snow and wind damage (cottonwoods, Silver Maples) may be used only on a very limited basis, as approved by the City. (Refer to plant list.)

Use of non-potable water will require plant selection tolerant of higher salt and potassium levels. Additional information pertaining to the use of non-potable water may be obtained by contacting the City of Westminster Department of Public Works and Utilities.

E. Buffering Between Uses

Buffering is encouraged between two or more properties of varying use intensities in order to inhibit visibility and/or to mitigate the transmission of noise from one property to

another. Buffering can be accomplished by means of plant materials, walls, fencing, landforms, or a combination of these measures. Because earth berms are so effective in reducing sound and limiting undesirable views, the installation of berms, in combination with evergreen and deciduous trees and shrubs, is generally required to occur between differing land uses. The maximum slope of berms shall not exceed 4:1 (25%).



LANDSCAPE BUFFER

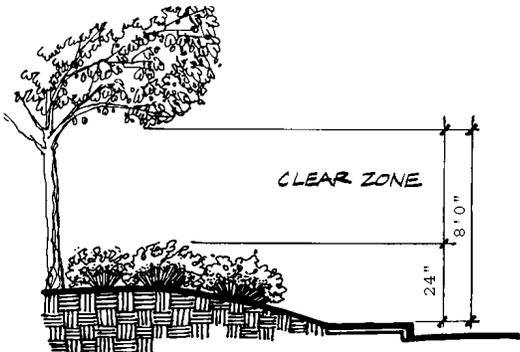
Intensity: For purposes of this section of the regulations, intensity is a general expectation of the magnitude and negative impact of a land use on a neighboring land use. The intent is that a lesser intensity use be buffered from the negative impacts of a higher intensity use.

F. Sight Triangles

Safe ingress and egress from one street or driveway to another, based in part upon the ability of a driver to see oncoming vehicles or pedestrians is a necessary consideration in site planning and landscape design.

“Sight triangles” shall be designated in order to insure that there are no visibility obstructions for motorists. Sight triangles shall be shown on all relevant Plans. (Refer to the City’s Standards and Specifications for the design and construction of public improvements for more detailed information regarding how to calculate a sight triangle.)

All plant material, walls, fences, berms and/or structures in the sight triangle cannot exceed 24 inches above the top of the adjacent curb height. Evergreen trees may not be placed within the sight triangle. The placement of deciduous trees within sight distance triangles is discouraged because as trees mature and tree trunks increase in size, visibility may be impacted to such a degree that removal of the tree(s) may become necessary



SIGHT TRIANGLE LANDSCAPE

G. Medians, Landscape Islands, and Landscape Adjacent to Hardscape

Landscape street medians at development entryways and landscape islands in the center of cul-de-sacs may be required. If landscaped medians are provided, they should be a minimum of 50 feet long and 10 feet wide. Medians and landscape islands shall be maintained by the property owner or homeowner’s association – and indicated as such on the relevant Official Development Plan. When the City is intended to maintain a median or similar area, the irrigation design must be separate from landscape areas maintained by others. This includes a separate irrigation tap and meter.

Careful attention to the design of berms and slopes is necessary to minimize water runoff and drainage on adjacent areas.

Planting area height (including mulch) immediately adjacent to hardscape, such as pavement or curbing, shall be level to or below the surrounding hardscape or curbing to minimize water runoff and enable proper maintenance.

H. Drainage and Detention Areas

The developer/owner is responsible for the installation of landscaping and irrigation for drainage areas and detention ponds. The design of these areas must consider maintenance issues such as: weed control measures, maximum heights of grasses/turf, mowing, and water retention and release rates that can result in soggy ground at the bottoms of these pond areas. When channelization occurs, design incorporating physical elements or plants for a natural appearance may be required. The design must be consistent with the requirements of the Urban Drainage and Flood Control District.

Detention pond areas must be planted at a rate of 1 tree and 3 shrubs per 550 square feet of area above the 5-year storm water surface elevation. Trees and shrubs must be located above the 5-year storm water surface elevation. Below the 5-year surface elevation, plant material is limited to turf or other groundcovers. The bottoms of detention ponds may be planted with a mixture of grasses and forbs that are suited to periodic flooding and/or maintained for natural habitat evolution if function is not impaired. Timber or concrete walls are not acceptable design solutions for detention ponds.

The design of drainage areas shall address the same issues and incorporate the same criteria, noted herein, as that of detention ponds.

The property owner shall be responsible for the ongoing maintenance of detention ponds and drainage areas. Maintenance responsibility shall be clearly defined on the Official Development Plan.

Detention ponds and drainage areas in non-residential developments shall be located within a building lot.

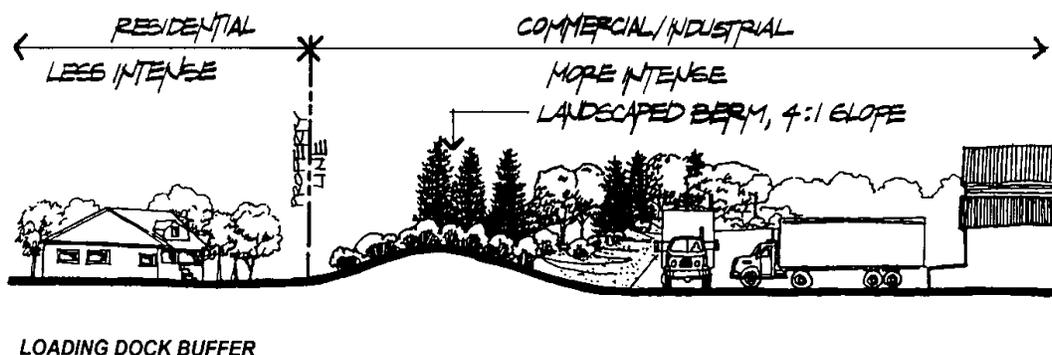
Detention Ponds and drainage areas are not permitted within minimum landscape setbacks. The location and design must be integrated with the overall site.

All turf and plant material shall be irrigated with an automatic sprinkler system. To prevent a soggy bottom area, it is suggested that the bottom area within the detention pond be a separate irrigation zone from the sloped sides. Slopes shall not exceed 4:1.

I. Trash and Loading Area Screening

Trash dumpsters must be screened with opaque gates, fences or walls – according to existing zoning requirements or design guidelines. Brick Screen walls are generally required. Dumpsters and trash cannot exceed the height of the surrounding enclosure. Roofed enclosures and other design elements may be required.

Trash, service areas and docking facilities shall be buffered from adjacent properties by means of evergreen plant material, walls, landforms, or a combination of these measures. Berms with a maximum 4:1 slope in combination with evergreen and deciduous trees and shrubs are recommended. The height of berms will be determined at the time of Official Development Plan.



J. Fencing and Walls

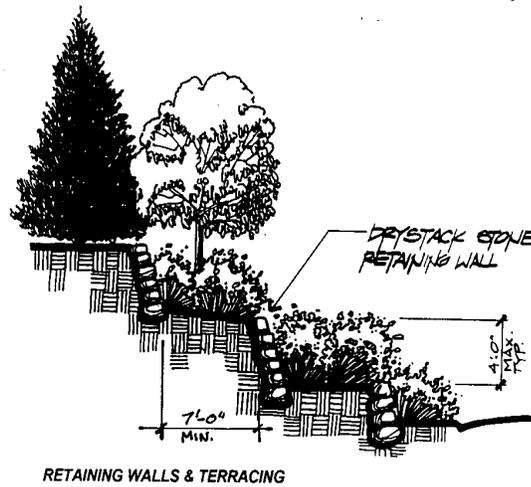
Fencing shall be as per the City Municipal Code, Section 11-4-6-(O), requirements as noted in specific land use categories herein, and any applicable design guidelines. The ownership and responsibility for the on-going maintenance of fencing and walls must be identified on the Official Development Plan.

K. Retaining Walls

Retaining walls are commonly used to reduce steep slopes and create level areas. Wall heights shall not exceed 4 feet. Terracing steep slopes with a series of low retaining walls is a design solution for changes in grade that exceed 4 feet in elevation. Retaining walls shall be spaced a minimum distance apart of 7 feet. The slope between walls shall be per geotechnical recommendations and shall not exceed 4:1 (25%).

Dry-stacked native stone, pre-cast masonry block, or masonry block walls with stone, brick or stucco facing are required materials for retaining walls. Treated timber walls are prohibited – except for use by the resident homeowner in single-family detached or duplex lots. Landscaping, including irrigation, is required to occur within any terraced areas. Large species of trees are discouraged within or adjacent to terraces or walls due

to potential negative impact on the structural integrity of terraces and walls. Low water plantings and/or low volume irrigation is required in these areas.



L. Utilities, Fire Hydrants and Easements

Landscaping within these areas must be shown on the Official Development Plan. Landscaping, irrigation, paving and fencing within a public easement must be removed and replaced by the owner of the land, when requested by the City, so that maintenance within easements can be performed.

Landscaping adjacent to overhead utility lines must take into account mature size and shape of plantings, and minimize potential conflicts, as determined by the City.

No plants or other landscape items shall block free access to a fire hydrant. A 5-foot minimum setback shall be maintained to each side of all fire hydrants. Access from the front is to be completely unobstructed. (Requirements should be checked against current Uniform Fire Code).

VI. GENERAL LANDSCAPE PROVISIONS FOR PLANT MATERIALS, AND THEIR DESIGN AND INSTALLATION

The standards in these regulations are to be considered as minimum requirements. Developers/owners are encouraged to increase the size and/or quantity of plant materials whenever possible. Dependent upon site characteristics, the type of use, and desired effect or appearance, the City has the option to require landscaping beyond the minimum standards for a particular project.

The owner of a project is required to check with the City's Department of Public Works and Utilities to determine the proximity of the project to the City's non-potable water system and the feasibility of tying into this system.

The health, size and general appearance of plant material at the time of planting shall be in accordance with the recognized standards of the American Standards for Nursery Stock, published by the American Association of Nurserymen, and the standard specifications of the Associated Landscape Contractors of Colorado. The City retains the right to reject any and all plants not determined by the City to be of high quality, at time of landscape installation or acceptance.

All areas to be landscaped require soil amendment in accordance with the City's "Standards and Specifications for the design of construction of public improvement." This requires a minimum of 5 cubic yards of an organic amendment per 1,000 square feet of landscape area, tilled 8 inches in depth into the soil. (This also equals a minimum of 1 $\frac{5}{8}$ inch depth spread over the landscape area surface – prior to tilling.) The total required amount of soil amendment must be indicated on the Official Development Plan, including calculations indicating how the total amount was derived. Aged ground manure or compost containing a minimum of 50% organic matter is a general recommendation, however soil texture, PH, and amount of soluble salts in the soil and the amendment should be considered. If non-potable water is to be used, the organic soil amendment will need to be low in sodium.

For all properties that will have landscape area maintained by a Homeowners' Association, rental properties, and all non-residential properties, an inspection will be required to occur after spreading of the soil amendment, and prior to tilling. At time of inspection, the City must be provided with verification, including a receipt, from the supplier of the amount and type of soil amendment delivered.

All single-family lots will be required to have soil amendment according to City requirements noted herein, installed in all areas of the yard not covered with hardscape. Installation must occur by the developer prior to issuance of Certificate of Occupancy for each lot; or if surety is provided to the City, in an alternate timeframe determined by the City. The City must be provided with verification, including a receipt, from the supplier or installer of the amount and type of soil amendment delivered and installed. The City will require inspection prior to Certificate of Occupancy and release of surety.

Plants located within a particular hydrozone must be similar in water requirements to the designated zone.

A. Trees

Specific design considerations relevant to trees are as follows:

- Refer to the previous section “Considerations in Landscape Design” for primary design requirements.
- Long-living shade trees such as ash, honeylocust, linden, oak, etc. are preferred over fast growing, shorter living trees. The minimum size for deciduous shade trees is 2 inches in caliper.
- Ornamental trees shall not comprise more than 1/3 of the total trees in the landscape design, unless approved otherwise by the City. The minimum size of an ornamental tree shall be 2 inches in caliper. The minimum size for clump ornamental trees shall be 3 tree trunks and 6 feet in height.
- Evergreen trees must comprise at least 1/3 of the total trees required, unless approved otherwise by the City. The minimum size of evergreen trees shall be 6 feet in height.
- Twenty percent of the total number of required deciduous trees must be increased in size to a minimum of 3 inches in caliper. Twenty percent of the total number of required evergreen trees must be increased in size to 8 feet in height.
- Diversity of trees shall be as follows:

<u>#of Trees on Site</u>	<u>Maximum % of any One Species</u>
10-19	50%
20-39	33%
40-59	25%
60 or more	20%

- Evergreen trees such as Austrian Pine, Ponderosa Pine, and spruce must not be planted closer than 10 feet to a street, sidewalk or parking area. (Measured from trunk of tree to edge of pavement.)
- Trees should be located to provide summer shade and limit winter shade on walks and streets.
- Trees that drop fruits or have thorns should not be planted in close proximity to sidewalks, within parking lot islands or medians. (Very small or persistent fruits ok.)
- The use of Siberian or Chinese Elm (*Ulmus pumila*), Russian Olive (*Elaeagnus angustifolia*) and Salt Cedar Shrubs (*Tamarix*) is prohibited due to excessive insect infestation or invasive growth habits.
- Periodic winter watering is typically necessary in Colorado due to periods of dryness.
- All trees must be surrounded by an area of mulch, of no less than 2 feet from the trunk and 4 feet in diameter, and no less than 3 inches in depth. Keep mulch 3 inches away from tree trunks to reduce insect and trunk damage. It is recommended to periodically increase the mulch ring to the size of the drip line of the tree. This

encourages root development and conserves water for this purpose. Type of mulch must be specified and approved by the City.

- The preferable size of tree grates is 7 feet in circumference for the health of the tree. The minimum size shall be no less than 5 feet in circumference.
- One tree may be substituted for 10 shrubs, or vice versa, if determined to be desirable by the City.

B. Shrub and Perennial Beds

- Refer to the previous section “Considerations in Landscape Design” for primary design requirements.
- All shrub and perennial bed areas shall be separated from turf areas by an edging material. Edging materials placed near building foundations shall not be so high as to interfere with positive drainage away from the structures. Metal or plastic edging shall not be installed or maintained at a height greater than the adjacent landscape surfaces. Edging with sharp edges is prohibited.
- No more than 25% of a shrub bed shall be designed in such a manner as to be free of plant material within 5 years of planting.
- All shrub beds must be mulched and maintained at a minimum mulch depth of 3 inches. Areas containing perennial flower or groundcover species that have a spreading growth habit, may be mulched at a minimum 1-inch depth, as approved by the City.
- Mulches can be difficult to maintain on sloped areas. Plant choice and reduced spacing between plants should be considered for sloped areas.
- The height/grade of the soil within shrub and perennial beds must be lower than the surrounding hardscape or turf areas in order to accommodate the mulch depth requirements, as well as to minimize water runoff, reduce mulch loss to other areas, and enable property maintenance.
- The use of weed barrier fabrics underneath mulch in shrub beds is required, except for landscaping within a single-family lot. Weed barrier fabrics must be water permeable.
- For purposes of diversity, longevity, and health, no more than 25% of the shrub total shall be comprised of one species.
- All shrubs must be minimum 5-gallon container in size.
- One 5 gallon; or three 1 gallon long-lived, large perennial grass species, or climbing vine species, may be substituted for one five-gallon shrub, as approved by the City.
- The use of perennial and annual flower and herbaceous plants is encouraged but not required by the City. Except as noted otherwise, perennial, annual and herbaceous

plants are not accepted in lieu of minimum shrub requirements. All groundcovers and perennial flowers, vines or grasses must be minimum 1-gallon container in size.

C. Turf Areas

- Refer to the previous section “Considerations in Landscape Design” for primary design requirements. Also, refer to the City’s “Standards and Specifications for the Design and Construction of Public Improvements” for additional, detailed construction requirements related to landscaping.
- For reasons of water conservation and water-wise landscaping, the high hydrozone shall not exceed 50% of the landscape area of non-residential properties, exclusive of right-of-way, unless approved otherwise by the City. An annual water budget not to exceed 15 gallons/square foot/year is required for all landscapes.
- A bluegrass blend turf is best suited for turf areas that will receive regular pedestrian or canine foot traffic. Areas that do not receive regular pedestrian or canine foot traffic will be considered for alternative turf grasses.
- The use of artificial turf is generally prohibited, except for use in single-family detached or duplex lot yard areas not adjacent to a street, or public or private park or open space. The City may consider other exceptions to this limitation on a case-by-case basis for sports fields and other limited applications.
- Alternative turfs such as buffalo grass, fescue, and other grasses that can be maintained at a height not to exceed 6 inches are recommended to occur only where less intensive use of turf is anticipated – areas that do not receive regular pedestrian or canine foot traffic. The use of alternative turfs in lieu of bluegrass turf are subject to City approval, excepting the use of alternative turf by the resident single-family or duplex homeowner completing their landscape.
- Acceptable methods of installation for alternative turfs include sodding, plugging, or seeding. Bluegrass, fescue, buffalo grass, and other grasses commercially grown as sod must be installed by sodding, excepting that of the resident single-family detached or duplex homeowner completing their landscape. Automatic irrigation is required.
- A description of proposed turfs and method of installation shall be indicated on approved Official Development Plans and related landscape documents.
- Seed mixes shall specify the species of grasses used in the mix, the anticipated appearance and height, and name of supplier. Grasses shall be a species that can be maintained and irrigated at a maximum of 6 inches in height, unless otherwise approved on the Official Development Plan. All variances from the maximum 6-inch height shall be explicitly outlined on the Official Development Plan.
- Seed installation shall be by drilling or hydroseeding including a mulch and tackifier.

- All native seed areas shall be established at a minimum of 4 to 5 plants per square foot within 4 weeks after germination, and maintained at this level, or shall be re-seeded until established at that rate.
- Alternative turfs installed by seed may result in a higher incidence of weeds, therefore, an establishment and maintenance plan is required to be indicated on all landscape documents including the Official Development Plan. This plan must include a weed control and removal program, mowing schedule, and trash clean up.
- All turf installations, other than sodding, will require an additional warranty period of no less than 2 years.
- The height of grasses impacts the effectiveness/coverage of automatic irrigation systems. This needs to be taken into account in the landscape and irrigation design, as well as maintenance plan.
- Artificial turf shall comply with minimum standards and specifications as noted in the City's plant list.

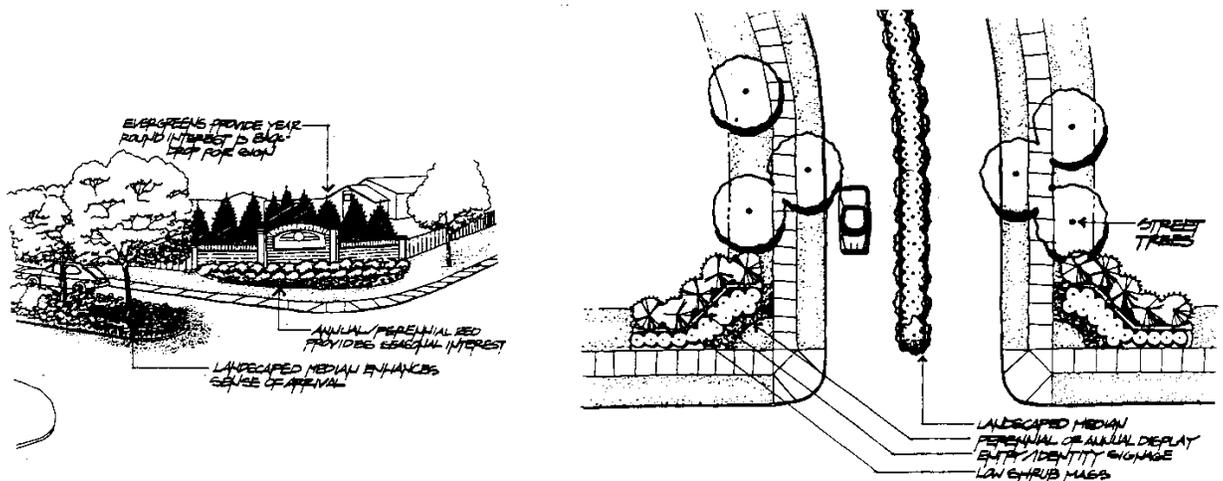
VII. RESIDENTIAL LANDSCAPE STANDARDS

Requirements noted in the land use categories and sections herein generally pertain to all the residential land use categories and sections herein, unless noted otherwise.

Land use designations shall be as defined in the City's Comprehensive Land Use Plan.

The following specific standards for the residential landscape are the minimum requirements. Developers are encouraged to exceed the standards whenever possible.

The entrance to residential developments should be designed to provide an attractive, year round landscape statement and to provide maximum safety for visibility and turning movements. Street medians/landscape islands are required at major entrances to the development. Formal landscaping and signage mounted on masonry walls are encouraged at the entrance to residential developments. Evergreen trees planted behind the entry signage are encouraged to enhance the community character established with the City's monument signage.



RESIDENTIAL PROJECT ENTRANCE PLAN & PERSPECTIVE

A. Single-Family Detached Residential

For the purposes of landscape requirements, duplex development will be determined by the Planning Manager as either single-family detached or attached residential.

1. Minimum Requirements

a. Landscape Area:

- The minimum landscape area for a single-family detached or duplex lot must be a minimum of 50% of each yard area adjacent to a street, unless approved otherwise by the City. Remaining yard area not landscape area, shall be hardscape.
- For yard areas not adjacent to a public street, there is no minimum amount of landscape area. These yard areas shall be any combination of landscape area,

hardscape, mulch or artificial turf. Any landscape area within these yard areas shall follow the requirements herein.

- Maintenance of landscape improvements within the individual lot is the responsibility of the property owner.

b. Plant Materials:

1. Trees:

- Refer to the previous section “Considerations in Landscape Design” for requirements regarding existing trees.
- For lots up to 10,000 square feet in size, a minimum of 1 shade tree shall be required in the front yard of every residence. For lots larger than 10,000 square feet in size, a minimum of 2 trees shall be required in the front yard of every residence, with at least one tree being a shade tree. The use of evergreen trees in conjunction with shade trees is encouraged.
- The required trees shall be installed by the developer prior to Certificate of Occupancy, or if surety is provided to the City, in an alternate timeframe determined by the City. If homeowner installation is preferred; a credit in the amount of the required trees (including installation) shall be posted by the developer with a local nursery for use by the homeowner.

2. Shrubs, Groundcovers and Turf:

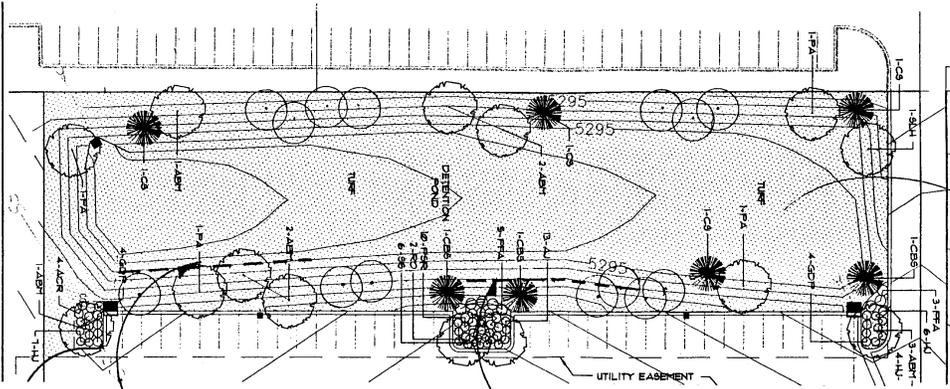
- Minimum landscape improvements within the landscape area of each lot shall consist of a grass lawn and/or shrubs and/or groundcovers, and shall be established by the developer or homeowner. Required landscape improvements by the developer must occur prior to Certificate of Occupancy, or if surety is provided to the City, in an alternative timeframe determined by the City. Required landscape improvements by the homeowner shall occur within one year of the Certificate of Occupancy.
- All required landscape area shall consist of 100% living groundcover, turf, or shrub bed area.

c. Adjacent Right-of-Way (ROW) and Common Areas:

- The Official Development Plan must specify the design and landscape requirements of all right-of-ways and common areas including that of right-of-way adjacent to single-family or duplex lots.
- One tree and three shrubs per every 550 square feet of landscape area shall be provided in all right-of-way and common areas. One hundred percent of

the landscape area shall contain turf, groundcover, or shrub beds. The following exceptions to this requirement is as follows:

1. The right-of-way landscape area of local streets with detached walks shall be planted with one shade tree every 80 linear feet and turf, groundcover, or shrubs.
 2. The right-of-way landscape area of local streets with attached walks shall be planted with turf, groundcover, or shrubs.
 3. Detention pond area below the 5-year storm surface elevation is limited to the planting of turf or groundcover plants.
 4. The Official Development Plan shall specify any deviation from the above landscape requirement for private parks or other common areas or row area if a larger area of turf is determined to be desirable by the City.
- Installation of landscape improvements within the adjacent right-of-way of local or collector streets must occur by the developer or homeowner no later than the time of the adjacent yard improvements (see above). Installation of landscape improvements within adjacent right-of-way of all other adjacent streets – including highways, and of all other common areas must occur by the developer according to phasing plans indicated on the Official Development Plan.
 - The maintenance of all landscape improvements in the right-of-way is the responsibility of the adjacent lot owner unless specified otherwise on the Official Development Plan.
 - The installation and maintenance of all landscape improvements within other common areas is the responsibility of the property owner.



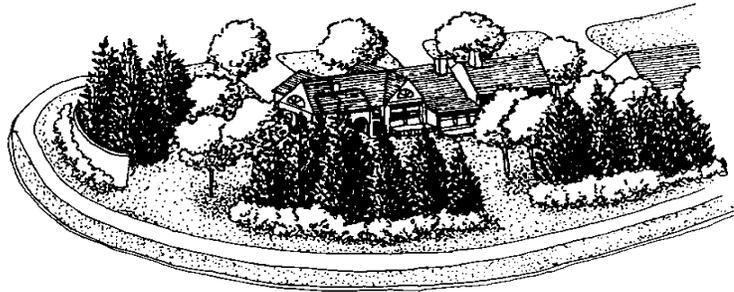
All trees outside the 5 year surface elevation

All shrubs outside the 5 to 100 year surface elevation

d. Other Requirements

- A 6-foot height berm (with 6 foot height fence or wall location on top of the berm) will be required adjacent to arterial streets and highways.
- Refer to the Landscape Regulations Chart.
- Refer to other sections within these Landscape Regulations for other requirements including, but not limited to, soil preparation and irrigation.
- Refer to the Municipal Code for additional regulations regarding landscaping for rental housing.

B. Single-Family Attached and Multi-Family Residential



SINGLE - FAMILY ATTACHED PERSPECTIVE

1. Minimum Requirements

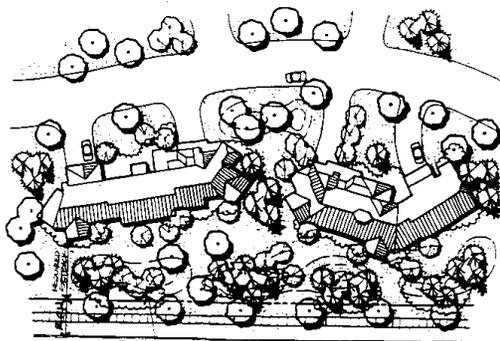
a. Landscape Area:

- All non-hardscape shall be developed as landscape area, and no less than a minimum of 40% of the overall site area shall be landscape area, right-of-way landscape area is not included in the 40% area calculation. All non-hardscape area shall be developed as landscape area. A minimum 25-foot landscape setback is required from the ultimate/future right-of-way line. A minimum 35-foot landscape area is required along all other property lines. Also refer to the Single-Family Attached Residential Design Guidelines and other applicable guidelines.

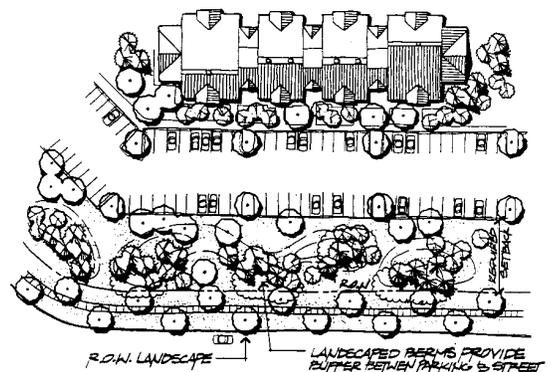
b. Plant Materials:

- Within the landscape area, a minimum of 1 tree and 3 shrubs are required per 550 square feet (excepting below the 5 year storm water surface elevation within detention ponds).

- Refer to the Single-Family Detached Regulations regarding requirements for trees, shrubs, groundcovers and turf.
 - Refer to the following section “Adjacent Right-of-Way and Common Areas” for installation and maintenance requirements of plant materials. Landscape improvements within any private courtyard or lot area for each residential unit shall be the responsibility of the resident/owner unless specified otherwise on the Official Development Plan.
- c. Adjacent Right-of-Way and Common Areas:
- The Official Development Plan must specify the design of landscaping within all common areas and right-of-way.
 - Landscape improvements within the adjacent right-of-way areas, and common areas within the development must occur by the developer according to phasing plans indicated on the Official Development Plan.
 - Maintenance of all landscape improvements in the right-of-way and other common areas is the responsibility of the developer until turned over to the homeowner association/owner.
- d. Other Requirements
- Refer to the section in Single-Family Detached Residential for requirements.



SINGLE - FAMILY ATTACHED PLAN



MULTI - FAMILY RESIDENTIAL PLAN

VIII. RIGHT OF WAY AREA LANDSCAPE STANDARDS

Right-of-way requirements apply to developments of all types of land use. Landscape improvements and their maintenance, within all right-of-way areas, are the responsibility of the developer/owner of adjacent private property.

Landscape design of all right-of-way areas, including that of US 36 and I-25, shall be shown on the Official Development Plan.

Landscape requirements, including berms, fencing or walls between streets and residential development, shall be as determined by an Official Development Plan or other related documents, and as required by the Regulations herein. Refer to the appropriate design guidelines for additional requirements.

Although fencing between the right of way of arterial or collector streets and residential developments is often proposed or required as a means of providing privacy and buffering, the use of landscape materials and earth berming either in lieu of fencing, or in conjunction with fencing, is highly preferred and shall be required in most instances. The maximum slope of berms shall not exceed 4:1.

A. Minimum Area

- All area within the right-of-way not comprised of hardscape, as required by the City, shall be landscape area.

B. Plant Materials

- Refer to the Landscape Regulations chart, single-family detached, and Section V11.A.1.c for relevant landscape requirements, plant materials and sizes, and amount of landscaping. Automatic irrigation is required.
- The City has the option to reduce (or increase) the amount of required plant materials.

C. Other Requirements

- The City will refer preliminary design of landscape improvements within the right-of-way of I-25, US 36, Federal Boulevard, Wadsworth Parkway, 120th Avenue and Sheridan Boulevard south of US 36 to the Colorado Department of Transportation (CDOT) for comment at the time of Official Development Plan review and approval. Subsequent design review and construction approval from CDOT is the responsibility of the developer.
- The ownership and maintenance of landscape improvements in the right-of-way is that of the developer until turned over to the adjacent property owner or homeowner/business association.
- If an exception is made regarding long term maintenance of any landscape improvements within a median or other right-of-way area to be that of the City, the

irrigation system must be designed and constructed with its own separate water tap (not part of a larger, private irrigation system).

- Refer to Landscape Regulations Chart.
- Refer to other sections within these Regulations.

IX. PARKING LOT LANDSCAPE STANDARDS

Parking lots within any land use category are required to be landscaped.

A. Minimum Area

- Landscape area includes the peripheral area around the outside of the parking lot as well as internal to the parking lot. All non-hardscape area shall consist of landscape area.
- Parking lots and any automobile overhang area shall not be located within the required landscape setback areas (minimum 25 feet from right-of-way line). Refer to other applicable guidelines for additional setback information.
- Landscape islands/medians are encouraged along drive entrances; and required at periodic intervals within parking right-of-ways, at the end of each parking right-of-way and periodically between right-of-ways of parking. (See Landscape Regulations Chart for specific requirements.)
- Parking lots must be buffered, approximately 3 feet in grade, from adjacent streets and properties with the use of berms or slope in grade; shrub beds may replace or be used in conjunction with berms or slopes where it is not feasible for an elevation difference of 3 feet; and trees as determined by the City. An exception to this regulation is the required 6-foot berm adjacent to arterial streets and highways for residential developments as specified elsewhere in these Regulations.
- The landscape design must take into account any automobile overhang into the landscape area and the mature size of the plant material in order to minimize damage and conflict.
- Berming within landscape islands and medians is discouraged due to water runoff and higher maintenance requirements. Bluegrass is discouraged within landscape islands and medians.
- Pedestrian foot traffic must be considered and reflected in the design of parking lots in order to accommodate the needs of the pedestrian and minimize foot traffic within landscape areas.
- Curbs shall be provided in all parking lots to separate landscape area from pavement in order to maintain parking lot surface, protect public sidewalks from vehicular intrusion and prevent parking in areas where parking is not permitted.

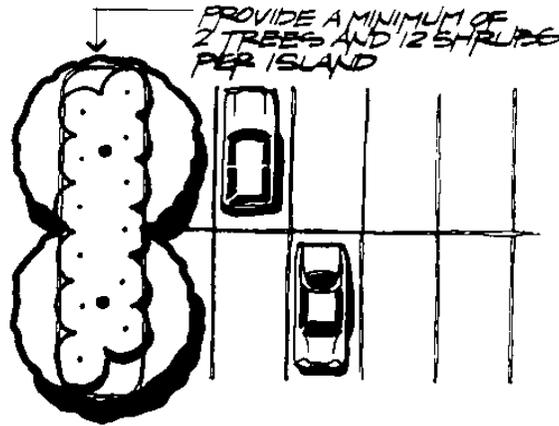
B. Plant Materials

- Refer to the Landscape Regulations Chart, single-family detached, for minimum landscape requirements, minimum plant sizes, and amount of landscaping in common areas.
- Parking lot design, plant selection and location should consider impact on visibility of proposed signage.

- Shade trees are encouraged within and adjacent to parking lots for provision of shade and relief from heat during summer months.
- Plant selection must discourage foot traffic through landscape islands/medians. Plants that grow to a very low height and/or wide plant spacing is therefore discouraged.

C. Other Requirements

- Refer to Landscape Regulation Chart.
- Refer to other sections within these Regulations.



PARKING LOT LANDSCAPE

X. NON- RESIDENTIAL LANDSCAPE STANDARDS

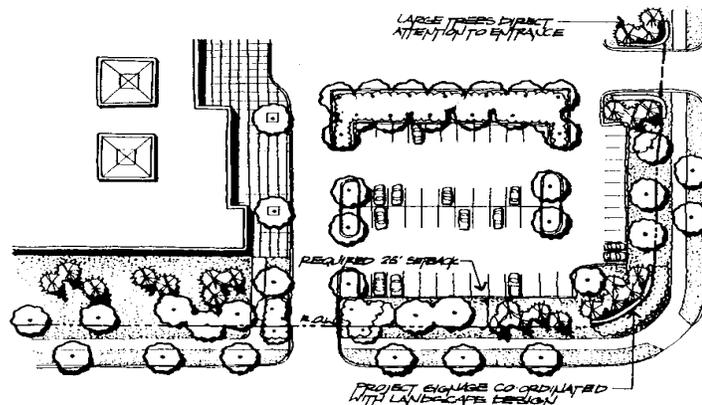
This section of the regulations shall apply to all non-residential land uses such as commercial, office, and industrial properties, as well as religious, institutional, non-profit, government and public projects of a non-residential nature.

It is required that a minimum distance of 25 feet along each property frontage abutting a public right-of-way be landscaped area. The 25 feet is measured from the ultimate/future right-of-way line towards the interior of the site. The majority of the landscaping for commercial and/or industrial sites should be situated in the front and/or the sides of the site, and should be visible from abutting right-of-ways. Landscaped areas should not be enclosed by a fence that limits its visibility.

Landscaping, including trees, is encouraged adjacent to buildings, as well as throughout the general landscape area, and may include landscape planters in the walks and other hard surface areas.

Positive drainage shall be maintained away from buildings. Planter areas shall include adequate area for root growth.

Turf or other plantings adjacent to pavement or foundations are encouraged to be of low water requirements or to be irrigated with low volume methods.



COMMERCIAL LANDSCAPE PLAN

The entrances to commercial or industrial centers should be designed to provide an attractive, year round landscape statement. Medians/landscape islands are encouraged at entranceways.

Enhanced landscaping is encouraged for monument sign feature areas. The addition of large trees, especially evergreens, can provide an all-season backdrop and direct attention to the sign feature area. The inclusion of perennials and annuals can provide color for the spring and summer, and is generally required.

A. Minimum Area

- A minimum of 20% of the site shall be landscaped including the general landscape area and detention pond areas, and excluding right-of-way.

- Driveways, hardscape, parking areas or walks are not included. Parking lot island landscaping is included. Right-of-way landscaping is required for adjacent streets and highways, but is not included in the required 20% calculation.

B. Plant Materials:

- Within the required landscape area, 1 tree and 3 shrubs are required per 550 square feet of the landscape area, (excepting below the 5-year storm water surface elevation within detention ponds). A mixture of evergreen and deciduous trees shall be provided. If the landscape area exceeds 20%, a reduction in the otherwise, resulting number of trees and shrubs, may be approved by the City, in order to encourage landscape area in excess of minimum requirements.
- Refer to Single-Family Detached Regulations regarding the requirements of landscape area and the ground surface coverage.
- High water zones cannot exceed 50% of the landscape area, excepting right-of-way areas, parks, or other areas as approved by the City.
- All landscape improvements shall be installed by the developer prior to Certificate of Occupancy of the building or buildings, in phases indicated by the Official Development Plan, or if surety is provided to the City, in an alternate timeframe determined by the City.
- Maintenance of all landscape improvements shall be the responsibility of the developer/owner/ or business association.

C. Other Requirements

- Refer to Landscape Regulations Chart.
- Refer to other sections within these Regulations.
- Refer to the appropriate design guidelines (example: Commercial Design Guidelines) for additional requirements.

XI. LANDSCAPE REGULATIONS CHART

This chart supplements both the general landscape requirements and the specific land use requirements.

REFER TO TEXT PORTION OF REGULATIONS FOR ADDITIONAL INFORMATION	MINIMUM LANDSCAPE REQUIREMENTS	MINIMUM PLANT SIZES*	AMOUNT OF LANDSCAPING REQUIRED IN COMMON AREAS	MINIMUM LANDSCAPE SETBACK AREA	INSTALLATION AND MAINTENANCE OF LANDSCAPE IMPROVEMENTS
SINGLE FAMILY DETACHED (SFD)	<p>LANDSCAPE AREA: MIN. 50% OF EACH YARD AREA ADJACENT TO A STREET. (REMAINING YARD AREA IS HARDSCAPE)</p> <p>TREES IN THE FRONT YARD: 1 SHADE TREE PER LOT UP TO 10,000 SF IN SIZE; 2 TREES (1 SHADE) PER LOT IF LARGER THAN 10,000 SF</p> <p>REQUIRED LANDSCAPE IMPROVEMENTS MUST BE INSTALLED PRIOR TO C.O. BY DEVELOPER OR WITHIN 1 YEAR OF C.O. BY HOMEOWNER</p> <p>ROW ADJACENT TO LOT OR SUBDIVISION: LANDSCAPE BY HOMEOWNER OR DEVELOPER</p> <p>SOIL PREP. VERIFICATION PRIOR TO CERTIFICATE OF OCCUPANCY.</p> <p>AUTOMATIC IRRIGATION IS REQUIRED</p> <p>EXISTING TREES: REFER TO TEXT IN REGULATIONS</p>	<p>DECIDUOUS SHADE TREE: 2 INCH CALIPER</p> <p>ORNAMENTAL TREE: 2- INCH CALIPER</p> <p>EVERGREEN TREE: 6 FOOT HEIGHT</p> <p>SHRUBS: 5 GALLON CONTAINER</p> <p>PERENNIALS, VINES, GROUNDCOVERS: 1 GALLON CONTAINER</p> <p>TURF/LAWN: GRASS SPECIES TO BE MAINTAINED AT 6 INCH HEIGHT; SEED OR SOD FOR TURF WHEN INSTALLED BY RESIDENT HOMEOWNER; TYPICALLY SOD FOR ALL TURF BY DEVELOPER OR BUILDER WITHIN RESIDENTIAL BUILDING LOT, ROW, OR WITHIN COMMON AREA LANDSCAPING</p> <p>COMMON AREAS: 20% OF DECIDUOUS TREES TO BE 3 INCH CALIPER AND 8 FOOT HEIGHT FOR EVERGREEN TREES</p>	<p>LANDSCAPE AREA: ALL GROUNDPLANE AREA EXCLUSIVE OF HARDSCAPE IMPROVEMENTS. THE LANDSCAPE AREA SHALL BE PLANTED WITH TREES, SHRUBS, TURF OR GROUNDCOVER.</p> <p>ONE TREE AND THREE SHRUBS PER 550 SF OF LANDSCAPE AREA- EXCLUDING THE AREA BELOW THE FIVE YEAR STORM WATER SURFACE ELEVATION IN DETENTION PONDS</p> <p>REFER TO SECTION VII.A.1c FOR LOCAL STREET ROW</p> <p>DETENTION NOT ALLOWED IN ROW</p> <p>THE CITY HAS THE OPTION TO REDUCE THE QUANTITY OF TREES AND/OR SHRUBS FOR LANDSCAPE AREAS SUCH AS PRIVATE PARKS OR OPEN SPACE, WHERE LARGER TURF AREAS ARE DETERMINED BY THE CITY TO BE DESIRABLE.</p>	<p>A 6-FOOT HEIGHT BERM, WITH A 6- FOOT HEIGHT FENCE OR WALL ON TOP OF THE BERM, IS REQUIRED ADJACENT TO ARTERIAL STREETS AND HIGHWAYS, MEASURED FROM TOP OF CURB. THIS WILL REQUIRE ADDITIONAL LANDSCAPE SETBACK ALONG ARTERIAL STREETS AND HIGHWAYS. ALTERNATIVE DESIGN SOLUTIONS DEPENDING UPON SITE SPECIFIC GRADING CONSIDERATIONS MAY BE CONSIDERED BY THE CITY.</p> <p>REFER TO SFD RESIDENTIAL DESIGN GUIDELINES.</p>	<p>INSTALLATION BY THE DEVELOPER OR LOT OWNER FOR EACH LOT AND ADJACENT RIGHT OF WAY</p> <p>MAINTENANCE BY THE DEVELOPER THEN HOME OWNERS ASSOCIATION/OWNER FOR ALL RESIDENTIAL LOTS AND COMMON AREAS</p> <p>*MINIMUM PLANT SIZES DO NOT APPLY TOWARD LANDSCAPING BY RESIDENT LOT OWNER IN PRIVATE YARD AREAS, EXCEPTING ANY REQUIRED FRONT YARD TREES OR SHRUBS AS REQUIRED BY THE OFFICIAL DEVELOPMENT PLAN</p> <p>ADDRESS THE DESIGN, OWNERSHIP AND MAINTENANCE OF FENCING AND WALLS ON THE OFFICIAL DEVELOPMENT PLAN</p> <p>*AS APPROVED BY THE CITY: 1 TREE MAY BE SUBSTITUTED FOR 10 SHRUBS, 1 SHRUB FOR ONE 5-GALLON OR THREE 1 GALLON LARGE PERENNIAL GRASSES OR VINES.</p>

REFER TO TEXT PORTION OF REGULATIONS FOR ADDITIONAL INFORMATION	MINIMUM LANDSCAPE REQUIREMENTS	MINIMUM PLANT SIZES	AMOUNT OF LANDSCAPING REQUIRED IN COMMON AREAS	MINIMUM LANDSCAPE SETBACK AREA	INSTALLATION AND MAINTENANCE OF LANDSCAPE IMPROVEMENTS
<p>SINGLE FAMILY ATTACHED (SFA) AND MULTI-FAMILY (MF)</p>	<p>40 % OF THE OVERALL SITE, EXCLUDING ROW, TO BE LANDSCAPE AREA</p> <p>ROW ADJACENT TO OR WITHIN THE PROPERTY MUST BE LANDSCAPED BY THE DEVELOPER</p> <p>SOIL PREP. VERIFICATION AND INSPECTION PRIOR TO CERTIFICATE OF OCCUPANCY</p> <p>AUTOMATIC IRRIGATION REQUIRED (EXCLUDING ANY PRIVATE COURTYARD AREAS)</p> <p>EXISTING TREES: REFER TO TEXT IN REGULATIONS</p>	<p>REFER TO SFD</p>	<p>REFER TO SFD</p>	<p>25 FEET MINIMUM FROM ULTIMATE RIGHT OF WAY; 35 FEET MINIMUM FROM ADJACENT PROPERTY LINES WITH NO DRIVES, DETENTION POND, OR PARKING IN THIS SETBACK</p> <p>A 6 FOOT HEIGHT BERM IS REQUIRED ADJACENT TO ARTERIAL STREETS AND HIGHWAYS (REFER TO SFD IN FOR SPECIFICS)</p> <p>INCLUDE TALL BERMS NOT TO EXCEED 4:1 SLOPE</p> <p>AUTO OVERHANG INTO THE MINIMUM LANDSCAPE SETBACK REQUIRES THE SETBACK TO BE INCREASED AN EQUAL DIMENSION</p> <p>REFER TO SFA & MF RESIDENTIAL DESIGN GUIDELINES</p>	<p>INSTALLATION BY THE DEVELOPER, MAINTENANCE BY OWNER/ HOME OWNERS ASSOCIATION FOR ALL COMMON AREAS, INCLUDING ROW</p> <p>LOT OWNER IF ANY SEPARATE YARD AREAS, WITH INSTALLATION TO OCCUR WITHIN ONE YEAR OF CERTIFICATE OF OCCUPANCY</p> <p>ADDRESS THE DESIGN, OWNERSHIP AND MAINTENANCE OF FENCING AND WALLS ON THE OFFICIAL DEVELOPMENT PLAN</p>
<p>RIGHT-OF-WAYS (ROW)</p>	<p>REFER TO RELEVANT LAND USE CATEGORY FOR REGULATIONS</p>	<p>REFER TO SFD</p>	<p>REFER TO SFD</p>	<p>NOT APPLICABLE</p> <p>LANDSCAPE DESIGN, INCLUDING GRADING, MUST TAKE INTO ACCOUNT FUTURE ROW IMPROVEMENTS AND WIDENING, AND MINIMIZE FUTURE CONFLICTS</p>	<p>REFER TO RELEVANT LAND USE CATEGORY</p> <p>ADDRESS THE DESIGN, OWNERSHIP AND MAINTENANCE OF ANY FENCING AND WALLS ON THE OFFICIAL DEVELOPMENT PLAN</p>

REFER TO TEXT PORTION OF REGULATIONS FOR ADDITIONAL INFORMATION	MINIMUM LANDSCAPE REQUIREMENTS	MINIMUM PLANT SIZES	AMOUNT OF LANDSCAPING REQUIRED IN COMMON AREAS	MINIMUM LANDSCAPE SETBACK AREA	INSTALLATION AND MAINTENANCE OF LANDSCAPE IMPROVEMENTS
PARKING LOTS	<p>LANDSCAPE ISLANDS AND MEDIANS ARE WITHIN PARKING LOTS ARE REQUIRED.</p> <p>LANDSCAPE ISLANDS ARE REQUIRED AT THE END OF EACH PARKING ROW AND AT A MINIMUM INTERVAL WITHIN THE ROW OF 30 PARKING SPACES</p> <p>IN PARKING LOTS IN EXCESS OF 300 SPACES, LANDSCAPE MEDIANS ARE REQUIRED TO OCCUR AT EVERY 3RD ROW OF PARKING, MINIMUM 9 FT IN WIDTH; OR EVERY 6TH ROW OF PARKING, MINIMUM 25 FT TOTAL WIDTH- INCLUDING 6 FT SIDEWALK.</p> <p>MINIMUM SIZE OF ISLAND MUST EQUAL OR EXCEED DIMENSIONS OF ADJACENT PARKING STALL IN BOTH WIDTH AND LENGTH</p> <p>REFER TO THE RELEVANT LAND USE CATEGORY FOR OTHER REGULATIONS</p>	<p>REFER TO SFA</p> <p>TURF IS GENERALLY NOT ACCEPTABLE WITHIN LANDSCAPE ISLANDS UNLESS AN UNDERGROUND IRRIGATION SYSTEM IS INSTALLED</p>	<p>REFER TO SFD</p> <p>LANDSCAPE ISLAND: ONE TREE AND 6 SHRUBS PER 171 SF, PLUS ONE SHRUB PER EVERY ADDITIONAL 25 SF AND ONE TREE FOR EVERY ADDITIONAL 150 SF.</p> <p>LANDSCAPE MEDIAN: MINIMUM OF ONE TREE EVERY 40 LINEAL FEET PLUS ONE SHRUB EVERY 25 SQUARE FEET</p>	<p>REFER TO RELEVANT LAND USE CATEGORY DESIGN GUIDELINES</p> <p>ANY AUTOMOBILE OVERHANG INTO THE REQUIRED LANDSCAPE SETBACK AREA OR MEDIAN REQUIRES AN INCREASE IN THE LANDSCAPE SETBACK OR MEDIANS BY AN EQUAL DIMENSION</p>	<p>REFER TO SFA</p>

REFER TO TEXT PORTION OF REGULATIONS FOR ADDITIONAL INFORMATION	MINIMUM LANDSCAPE REQUIREMENTS	MINIMUM PLANT SIZES	AMOUNT OF LANDSCAPING REQUIRED IN COMMON AREAS	MINIMUM LANDSCAPE SETBACK AREA	INSTALLATION AND MAINTENANCE OF LANDSCAPE IMPROVEMENTS
NON-RESIDENTIAL	<p>20% OF THE OVERALL SITE, EXCLUDING ROW, MUST BE LANDSCAPE AREA</p> <p>ROW ADJACENT TO OR WITHIN THE PROPERTY MUST BE LANDSCAPED BY THE DEVELOPER</p> <p>NO MORE THAN 50% OF THE LANDSCAPE AREA TO BE A HIGH HYDRO ZONE</p> <p>SOIL PREPARATION, INSPECTION AND VERIFICATION PRIOR TO CERTIFICATE OF OCCUPANCY</p> <p>AUTOMATIC IRRIGATION</p> <p>EXISTING TREES: REFER TO TEXT IN REGULATIONS</p>	REFER TO SFD	REFER TO SFD	<p>25 FT. FROM ULTIMATE ROW: REFER TO COMMERCIAL GUIDELINES FOR ADDITIONAL SETBACK REQUIREMENTS</p> <p>NO DETENTION OR PARKING IN LANDSCAPE SETBACK AREA</p> <p>DETENTION MUST BE LOCATED WITHIN A BUILDING LOT</p>	DEVELOPER THEN PROPERTY OWNER/ OWNERS OR BUSINESS ASSOCIATION FOR ALL LANDSCAPE AREAS INCLUDING ROW

XII. LANDSCAPE AND IRRIGATION PLAN REQUIREMENTS

Landscape and irrigation plans shall be submitted and approved by the City as part of the Official Development Plan (ODP), ODP Amendment or ODP Waiver. Landscape and irrigation plans may be required for redevelopment or change-in-use projects. As determined by the City, minor redevelopment or change-in-use projects may be required only to submit a landscape plan and a written statement describing the type of irrigation system proposed.

Landscape and irrigation plans will not be required of individuals constructing single-family or duplex residential units that they intend to own and occupy or of resident homeowners completing or altering the landscaping within their single-family or duplex lot – however, the landscape and irrigation requirements noted in these regulations must be followed, unless determined otherwise by the City.

Landscape and irrigation plans shall contain information as noted in these Regulations and the Plan Submittal Document.

A set of final landscape and irrigation construction documents shall be submitted for review and approval by the ODP Inspector prior to approval of the final plat, or if a final plat is already in place, prior to issuance of a building permit. No construction or landscape improvements can occur until the City approves the landscape and irrigation construction plans, and private improvements agreement. The landscape and irrigation construction plans must be in a similar format as Official Development Plans for filing and recording purposes by the City.

Landscape and irrigation construction plans must reflect the approved landscape and irrigation plan reviewed and approved at time of earlier Official Development Plan or ODP Waiver approval. Any revisions to these plans during the construction of a project must be approved by the City prior to the field change, and reflected in a revised set of construction drawings. As-built drawings must be submitted by the developer to the ODP Inspector and to the owner/owner's association/homeowner's association prior to final acceptance of the project. Prior to release of any surety, the developer must also provide a signed checklist to the City verifying that the landscape and irrigation improvements have been installed according to approved plans and City requirements.

Either a Landscape Architect or Landscape Designer shall prepare the landscape plan. A Certified Irrigation Auditor shall conduct the irrigation audit. (Resident single-family or duplex lot owners that are revising or completing their landscape are exempt from this requirement.)

A. Landscape Plans – The Official Development Landscape Plan and Landscape Construction Plan shall contain the following items:

1. Sheet sizes according to Official Development Plan requirements and no case larger than 24" x 36" for final landscape construction plans.
2. Title block centered at the top of each sheet – refer to the Official Development Plan submittal document for format, sheet name, company identification including address, phone number, name of person preparing the plan, and date.
3. Scale – written and graphic. Keep in mind the irrigation plan must be drawn to the same scale. 1" = 40 feet or larger (1" = 20 feet preferred).
4. North arrow.
5. Property lines, existing and future right-of-way lines.
6. Key.

7. Existing and proposed structures, sidewalks, overhangs and paving.
8. Natural features relevant to the site and/or retention/detention areas.
9. Proposed grading, indicating topographic features and spot elevations of the final grading plan, adequate to identify and properly specify landscaping for area needing slope protection as well as adequate to depict any screening of parking areas.
10. Show and label water features, berms, retaining walls, walls, fences, trash enclosures, outdoor lighting – including street lights, and signage.
11. Existing and proposed utility easements.
12. Sight triangles.
13. Show and label locations of proposed (low, moderate, high) hydrozones and identify the total square footage of each.
14. Show and label locations to be irrigated with potable and non-potable water and identify the total square footage of each.
15. Total water budget and calculations by hydrozone.
16. Existing plant material, including plants to be removed or relocated. (Label type, size, current and proposed locations.)
17. Proposed plant material located according to low, moderate or high hydrozones (label number, species, and size if not minimum size). Plants within any one hydrozone shall have similar water requirements. Draw plant material at a low estimate of mature size.
18. Language and calculations that indicate overall minimum requirements. This information must reflect both the required minimum percent of landscape area (as determined by type of land use), as well as the required minimum number of plants (trees, shrubs, turf area) broken down into specific landscape areas (such as private landscape areas and right-of-way landscape areas). The plant schedule must meet or exceed these requirements.
19. Note the amount of required soil amendment required and include calculations indicating how the total amount was derived. The amount of soil preparation, and calculations thereof, may be broken down by specific areas – such as right-of-way, private park, etc.
20. Label locations of proposed turf (species). Include information regarding method of installation (sod, plugs, seeding rates), maximum and/or maintained height, mowing schedule and weed control measures.
21. Label or key areas of mulch and indicate type.
22. Planting details, specifications, and installation information for plant materials, soil preparation, mulches, edging, etc. (The Official Development Plan landscape plan will provide general information in this regard and the construction landscape plan will provide additional information necessary for installation.)
23. Show general details of items such as berms, walls, retaining walls, fences, trash enclosures, outdoor lighting, signs, etc. Specific details related to plant installation, mulching, tree staking will be shown on the landscape construction plan.
24. Show a generic or model landscape detail/plan for single-family or duplex lots where the landscaping of a portion of the lot is required by the builder.
25. Plant schedule (see below). The schedule must accurately reflect the landscape plan.
 - The schedule shall be divided according to type of plant material: existing and proposed trees (broken into categories of deciduous shade trees, evergreen trees, accent/ornamental trees), shrubs, groundcovers, turf types, including any seed mixes. Plant species within each category shall also be labeled and grouped by their respective hydrozone rating.

- Plant name abbreviation (if used), plant name (common name, botanical name and variety), and exact quantities of each plant shall be included on the plant schedule.
 - The schedule shall indicate the size of plants. Size shall be expressed in terms of size of container (5 gallon for shrubs, 1 gallon for perennials and groundcovers), height of plant (for evergreen trees), or caliper of tree (for deciduous trees).
 - Plant spacing for shrubs and groundcovers must be indicated (for example: “4 feet on center – triangular spacing”).
26. Information as to who will have responsibility for maintenance of those materials, structures and areas on the plan. Include name, title, address and contact phone number.
27. City of Westminster Standard General Notes. (See Plan Submittal Document packet provided by the City).

For additional information and specific instructions on how to physically install plant material refer to the City sitework specifications.

B. Irrigation Plans

A preliminary irrigation plan shall be submitted in conjunction with the Official Development Plan, but is not part of the Official Development Plan document. The preliminary irrigation plan will be required to coordinate with the Official Development Landscape Plan and must indicate location and size (area) of each hydrozone – including any zones using non-potable water, total water budget broken down by each hydrozone, location and size of water tap and meter, existing and design water pressure, type of irrigation technique (such as drip, microspray, spray, rotor, underground, etc.), and other general information.

Irrigation construction plans will be required to indicate design, layout, and construction information as noted later in this section. Irrigation construction plans shall be submitted for review and approval at the time of landscape construction drawings and private improvements agreement.

All landscape area requires both soil preparation and an automatic irrigation system.

The irrigation system is to be installed after soil preparation and prior to plant materials.

Coordinate and reflect design and construction information as to tying into the City’s non-potable water system, if applicable. Additional information in this regard may be obtained by contacting the City of Westminster Department of Public Works and Utilities.

The irrigation system and irrigation construction plan shall be designed and installed to address all of the following:

- Coordination with the preliminary landscape and irrigation plans.
- Irrigation design and techniques must correspond to the hydrozone and type of plant material.

- Design for berms and slopes should minimize runoff. (Berms and slopes may need repetitive, shorter watering cycles.)
- Avoid overspray onto non-landscape areas.
- Irrigation methods of drip, microspray or sub-surface irrigation within landscape areas less than 8 feet in width.
- Total annual water application by irrigation (water budget) shall not exceed an average of 15 gallons/square foot/year to facilitate water conservation. For purposes of calculating the water budget, the low hydrozone is calculated as 3 gallons/square foot/year; the moderate hydrozone calculated at 10 gallons/square foot/year; and the high hydrozone calculated at 18 gallons/square foot/year.
- Requirements of water features must be indicated as part of the water budget and will be evaluated on a case-by-case basis. The water used in water features must be recycled. Non-potable water must be used if possible. Water features must be maintained in working order and operate during the times specified on the Official Development Plan.
- A maximum irrigation time limit of 8 hours every other day.
- All systems shall be capable of supplying a sufficient number of inches of water per week to the total irrigated area in order to maintain the health of the plant material.
- Identification of existing water pressure and design water pressure.
- Tap size(s) required shall be subject to approval by the City. The number and size of the tap(s) required shall be subject to approval by the City.
- Separate irrigation water taps and meters are required for all residential developments other than single-family detached. Separate irrigation water taps and meters are required for all non-residential developments if the irrigated area exceeds 40,000 square feet. An irrigation water tap shall be used only for irrigation purposes. Refer to the water regulations, Westminster Municipal Code, for information on water tap requirements.
- Use of a master shut-off valve to shut off water to the system when not operating in order to reduce leakage of water from the system.
- Use of backflow preventers.
- Use of pressure reduction valves (PRV) or pressure reduction sprinkler heads if water pressure within the irrigation system is above the component manufacturers recommendations. Likewise, use of booster valves where water pressure is too low.
- Irrigation time clock controllers shall have the capability to allow for seasonal adjustments, including global water budget controls. All controllers shall allow

for multiple programs and start times, 2-3-4-5-7-14 day schedules, and shall allow individual time settings down to the minute. Controllers (excluding single-family detached) shall use evapotranspiration or soil moisture based programming, including either local sensors, remote or historic evapotranspiration based scheduling, or soil moisture sensors.

- Irrigation clock controllers installed by the developer/builder shall be capable of a minimum of 10 zones for a single-family or duplex lot less than 10,000 square feet in area. Lots 10,000 square feet and larger shall require an irrigation clock controller of a minimum of 12 zones.
- Use of automatic rain shutoff devices.
- Sprinkler heads must provide head to head water coverage.
- No single zone shall mix head types.
- Turf and non-turf zones shall be irrigated on separate valves.
- Minimum acceptable distribution uniformities shall be 55% for pop up sprinkler heads or spray zones and 70% for rotor zones, or current irrigation association accepted minimums.
- The use of sprinkler heads that emit large water droplets, such as rotor heads, where possible.
- Sleeve, pipe, and valve sizing. Sleeve all lines under pavement.
- Irrigation using non-potable water should investigate the use of potable water for trees and shrubs.

Technical details regarding overall functioning of the system shall be the responsibility of the designer, the contractor and the owner. For additional reference information regarding irrigation systems see the Westminster Sitework Specifications.

Irrigation construction drawings shall contain the following information:

1. Sheet sizes according to Official Development Plan requirements and no larger than 24" x 36" for final irrigation construction plans.
2. Title block with name of project, sheet name, company identification including address, phone number, name of person preparing the plan and date.
3. Scale-written and graphic to match landscape plan. 1" = 20 feet is preferred.
4. North arrow.
5. Property lines, existing and future right-of-way lines.
6. Key.
7. Existing and proposed structures, water features, sidewalks, overhangs and paving.
8. Proposed grades or spot elevations in sloped or bermed areas.
9. Show and label locations or proposed (low, moderate, high) hydrozones and identify the total square footage of each.

10. Show and label locations to be irrigated with potable and non-potable water and identify the total square footage of each.
11. Total water budget and calculations by hydrozone.
12. All design information, system layout, and details of the system as noted earlier under irrigation system and irrigation construction plans must be shown and labeled.
13. Information as to who will have responsibility for maintenance of the system. Include, name, title, address and contact phone number.
14. City of Westminster standard general notes. (See Plan Submittal Document packet provided by the City.)

Completion of a successful irrigation audit will be required after installation of the irrigation system, prior to City acceptance. (Landscaping by single-family detached homeowner exempt.)

A copy of the irrigation system audit, performed by a Irrigation Association Certified Irrigation Auditor, along with an irrigation schedule developed from the audit that provides at least individual spring, summer, and fall schedules and total annual water application via irrigation in inches (maximum 15 inches/square feet/year), and an as-built irrigation plan shall be provided to the City and posted for the owner and/or manager at each time clock controller.

Within 6 weeks of the installation of new landscaping, the irrigation system installer shall reset the time clock controllers to the normal seasonal watering schedule. (Landscaping by single-family detached homeowner exempt.)

XIII. PLANT MATERIAL LIST BY HYDROZONE

A listing of plant material by suggested hydrozone placement is available from the City's Planning Division. This list will be updated and revised by City Staff on a periodic basis. Factors such as dramatic temperature changes over short periods of time, wind, soil, slope, exposure, moisture, and other environmental and maintenance factors can affect the hardiness and health of plant material. This plant list is not a guarantee of sustainability of any particular species within any particular hydrozone. This list is by no means inclusive and is to serve as a guide only. Proposed plant lists are to be submitted with the required landscape plan and will be reviewed on a case-by-case basis.

Use of non-potable water will require plant selection that is tolerant to higher salt and potassium levels. Plants that have increased salt tolerance are identified. This identification is not a guarantee of salt tolerance, health, or sustainability. For further information in this regard consult a landscape architect or designer.

The use of Siberian or Chinese Elm (*Ulmus pulmila*) and Russian Olive (*Eleagnus angustifolia*) trees and Tamarix (Salt Cedar) shrubs are prohibited within the City of Westminster.

XIV. LANDSCAPE MAINTENANCE REQUIREMENTS

All existing properties, excluding single-family detached, shall not modify any landscape area or plant materials without City approval. Maintenance and minor improvements within existing landscape area or of plant materials must occur in a manner that complies with the standards herein or decreases existing aspects of non-conformance.

An existing single-family lot without an Official Development Plan, or amended Official Development Plan or Official Development Plan Waiver that addresses landscaping, may modify existing landscaping if modifications comply with the requirements herein, or decrease an aspect of existing on-conformance.

The property owner, homeowner's or business association shall be responsible for the continual adequate maintenance of the landscaping and irrigation system required by and shown on the Official Development Plans and site plans accompanying Official Development Plan waivers, and resulting construction drawings.

All landscaping and landscape materials shall be continually maintained including irrigation, weeding, pruning and replacing in a substantially similar manner as originally approved. The following survival standards shall apply to all landscape areas and materials.

- a) All living plant material, as indicated by the Official Development Plan, must be maintained in perpetuity. The City must approve replacement or alternation of plant material.
- b. Non-living ground covers, such as rock or organic mulch, must have 100% ground surface coverage and be maintained at the required depth. Artificial turf shall be installed according to industry specifications and maintained in a manner to mimic a healthy living turf. Replacement of artificial turf shall be required when the material, wear, or installation is such that it is determined by the City that it no longer visually mimics a healthy living lawn area.
- c. All plant material including trees, shrubs, groundcovers, vines and turf must have a 100% ongoing survival rate.
- d. Any dead or severely damaged (as determined by the City) plant material shall be replaced by the owner or assigns within 6 months of notification by the City.
- e. Pruning of plant material shall not drastically alter the natural growth pattern and maturing size, as determined by the City. If the City determines that pruning has occurred that violates this requirement, the owner will be required to replace the affected plant with an equal plant within 6 months of notification by the City. This requirement also applies to plant material affected by storm damage. All tree-pruning activities shall be in accordance with the American National Standard for tree care operations (ANSI A300).
- f. Plants infected with insects or disease must be treated appropriately or removed from the property, as required by the City. Removed plants must be replaced with new, equal plant material, as determined by the City.
- g. Weeds must be abated and removed.
- h. Turf areas generally require periodic mowing, aeration, dethatching, fertilization, and weed abatement. Turf must not exceed 6 inches in height unless approved otherwise by the City. Turf and grass areas must be maintained in a healthy condition without areas of dirt or dead grass, as determined by the City.

- i. Irrigation should not occur in the heat of the day (between the hours of 10 a.m. and 6 p.m.) in order to reduce evaporation. Excessive water run off, as determined by the City, is not permitted.
- j. Irrigation systems shall be maintained and periodically adjusted to assure watering efficiency and conservation methods. Replacement parts shall match or be compatible with the system requirements.

XV. PRIVATE IMPROVEMENTS AGREEMENT

In accordance with City Code, a Private Improvements Agreement and surety is required for all private improvements within a development. Private improvements are all non-public improvements including landscaping, irrigation, lighting, fencing, etc. (See Section 11-6-4 of Westminster Municipal Code). The Private Improvements Agreement is a written agreement between the property owner and the City, and shall include the required landscape and automatic irrigation requirements and projected costs. Construction drawings shall accompany the Private Improvements Agreement. One of the forms of security as established by City Code shall also accompany the Public Improvements Agreement.

A. Releasing Surety and Warranty Maintenance

The improvements will be accepted in writing by the City when all items are satisfactorily completed in accordance with the terms of the Public Improvements Agreement and the Official Development Plan. Prior to release of any surety, the developer must also provide a signed checklist to the City verifying that the landscape and irrigation improvements have been installed according to approved plans and City requirements. Upon such acceptance, the warranty period and performance obligations contained below shall commence and the surety amount may be reduced to 15% of the original surety amount.

Warranty Maintenance

For a period of one year following the acceptance of the Improvements (the “Warranty Period”), the Owner shall be responsible for making any repairs or replacements required due to (a) defective materials, workmanship, or design or (b) damage that may be done to the Improvements except ordinary wear and tear. Repairs or replacement will be made which, in the opinion of the City, are necessary to maintain the Improvements to the same standards applicable at the time of the City’s acceptance of the Improvements. The one year period will be extended an additional year for turf areas not established by use of sod.

During the ninth month of the Warranty Period, a warranty inspection will be conducted by the City and a corrections list will be submitted to the Owner stating what repairs or replacements are necessary pursuant to this Agreement. A second warranty inspection will occur prior to the end of the second year for turf area not established by the use of sod.

All such deficiencies set forth in the corrections list shall be completed by the Owner within 60 days of notification. Any warranty repair or replacement that is not satisfactorily completed by the Owner within 60 days following notification may be completed by the City and charged to the Owner, which costs the Owner hereby agrees to reimburse to the City, unless modified by written agreement.

The City will monitor the satisfactory completion of all correction list items and, when completed, will provide the Owner a written acknowledgment of the completion of the Warranty Period and the release of the Improvements of designated portions thereof from warranty. Upon the request of the Owner, the City shall release the surety for any portion of the Improvements released from warranty by the City.

XVI. DEFINITIONS

For the purpose of these Landscape Regulations, the following terms shall be defined as noted herein.

Alternative Turf – refers to grasses used for lawn or field/meadow purposes other than bluegrass or a bluegrass/fescue blend.

Artificial Turf – refers to a non-living material typically used in lieu of a living turf/lawn. The appearance mimics a green, living turf or bluegrass lawn during the growing season.

Berm – an earthen mound intended for visual interest or screening of undesirable views. A berm is effective in reducing noise levels.

Caliper – the measurement in diameter of a tree trunk measured 6 inches above the ground for trees up to 4-inch size and 12 inches above the ground for larger sizes.

City – the use of the word “City” generally refers to either the “City of Westminster” or means “The Planning Manager” for the purposes of these Regulations. If a determination by the Planning Manager that an interpretation or decision of Planning Commission and/or City Council is warranted, the use of the word City can include Planning Commission and/or City Council.

Certified Irrigation Designer, Contractor or Auditor – requires successful completion of formal training, certification, licensing or other similar qualification by the Irrigation Association.

Common Areas – land area within a development intended for joint, private or public ownership and use. These areas are often maintained by a homeowners association, business association or in some instances, the City. Right-of-way is considered a common area for the purposes of these Regulations.

Deciduous – a plant with foliage that is shed annually.

Developer – a person, persons, or business that is responsible for the development of land, buildings and/or related improvements – often for the purpose of sale to a subsequent owner. The developer may be the property owner.

Double Row of Parking – Two rows of parking adjacent to each other, generally not separated by a drive aisle or landscaping.

Drip Line – a vertical line extended downward from the tips of the outermost branches of a tree or shrub to the ground.

Drought – generally refers to periods of a year or more with below average precipitation. Can also refer to seasons such as winter, spring, summer or fall, with below average precipitation.

Evapotranspiration – the quantity of water evaporated from adjacent soil surfaces and transpired from plants during a specific time.

Evergreen – a plant with foliage that persists and remains green year-round.

Evergreen Tree – a tree with evergreen foliage. Mature height generally exceeds twenty feet.

Fabric – refers to a porous geotextile fabric installed underneath mulch to retard the growth of weeds into and from the soil.

Groundcover – living plant material that grows low to the ground, usually under 24-inches in height, often of a spreading nature and typically available in small pots for planting. Does not include annuals, weeds, turf grasses, herbaceous perennials, mulches or tree canopy.

Hardscape – non-living site improvements at the ground plane such a building, pavement, walkways and parking areas – including those of crushed stone, patios, decks, mulch area (exclusive of mulch area in shrub and perennial beds) and other similar improvements as determined by the City. Hardscape area does not include artificial turf unless as approved otherwise in these Regulations.

Height – for the purposes of these Regulations plant height is determined as typically measured by National Nursery Association Standards.

Hydrozone – refers to areas within the landscape area defined by similar water needs to sustain healthy plants. For the purposes of these Regulations, hydrozones are broken into three categories and will ultimately be approved by the City after consideration of plant material and method of irrigation:

Low Hydrozone: 3 gallons of water or less of supplemental water is added in an irrigation season. Irrigation methods in this zone will usually be drip or microspray, unless a low water turf or groundcover is being irrigated in which the method may be spray or rotor head.

Moderate Hydrozone: 10 gallons of water is added by supplemental irrigation in an irrigation season. Irrigation methods for this zone will usually be spray or rotor head with large water droplets, or spray heads.

High Hydrozone: 18 gallons of water is added by supplemental irrigation in an irrigation season. Irrigation methods in this zone will usually be spray or rotor heads.

Irrigation – refers to an automatic, permanent, artificial watering system designed to transport and distribute water to landscape plants. Underground irrigation systems are required unless approved otherwise by the City.

Irrigation Audit – a procedure according to the Irrigation Association that includes a visual site inspection of the installed irrigation system for performance according to design criteria; a watering system test; physical corrections if necessary; and establishment of a watering schedule. (www.irrigation.org)

Irrigation Plan – a plan drawn to scale that indicates the irrigation components and their specifications as related to a specific landscape plan.

Irrigation Season – see “Year.”

Land Use – land use designation in these Regulations such as single-family, single-family attached, multi-family, non-residential, or other type of land use designation, are as defined by the Westminster Comprehensive Land Use Plan, Westminster Municipal Code, or City.

Landscape Architect/Designer – a professional who has successfully completed formal study or training in the field of landscape architect/design, culminating in either certification, licensing or degree.

Landscape Area – the area within a lot or property not comprised of hardscape, measured at the ground plane. Landscape area will not include tree canopy area, bare dirt, or weeds. Landscape area will consist of 100% living groundcover, turf, or shrub bed area. Water features may be included in the calculation of landscape area. Areas dedicated to edible plants such as orchards or vegetable gardens are not included.

Landscape Buffer – a landscape area intended to physically and visually separate one land use from another.

Landscape Improvements/Materials – all elements typically used and/or present in the designed landscape such as, but not limited to, soil, compost, rock, plant material, edging, weed fabric, mulch, irrigation system, fencing, lighting, seating. Artificial turf or plants cannot be substituted for required plant materials except as approved otherwise in these Regulations.

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

Landscape Setback Area – an area reserved for the primary use of landscaping measured by the horizontal distance between two points of reference. Oftentimes landscape setback refers to a distance of landscape area located between the property line and a building or parking area or other hardscape. Sidewalks located within a landscape setback area will necessitate a corresponding increase in the setback.

Maintenance – any activity undertaken to prevent the deterioration, impairment, or need for repair of an area, structure, right-of-way, or land use, including but not limited to, management, repair or replanting of plant materials and landscape materials.

Mulch – a non-living organic or inorganic material such as bark, rock, or stone materials typically in a loose condition, used in the landscape industry to cover bare ground. Mulch will provide a protective covering around plants, retard erosion, retain soil moisture, reduce weeds and maintain soil temperatures.

Non-Potable Water – treated, recycled waste water that may be available from the City for a specific use such as landscaping, not intended for human consumption.

Ornamental Tree – a tree of smaller size than a large shade or evergreen tree, often providing variety and interest by flower display, attractive fruit or fall color. Examples of ornamental trees are crabapples, aspen, hawthorn, and similar species.

Parking Lot Island - a parking lot landscape area typically surrounded on at least two sides by parking spaces or drive aisles.

Perennial – a herbaceous plant that blooms and produces seed for each year, exceeding two years. A short-lived perennial lives for approximately 3-5 years. Long-lived perennials are likely to live much longer and can remain for over 20 years.

Plant Materials – living plants such as trees, shrubs, groundcovers, vegetables, and vines. Does not include weeds or other undesirable plants as determined by the City.

Rain Sensor or Rain Shutoff Device – a device connected to an irrigation controller that overrides scheduled irrigation when significant precipitation has been detected.

Redevelopment – any man-made change to improved or unimproved real estate including any material change in the use or appearance of any structure, physical improvement, grading, landscaping, or in the land itself.

Shade Tree – Deciduous trees of large size, generally 30 feet or more in height when mature.

Shrub – a plant that typically retains branches all the way to the ground level – does not include evergreen trees with the exception of upright junipers.

Soil Amendment – refers to organic and inorganic material added to the soil to improved texture, moisture holding capacity and water and air infiltration.

Street – any public or private street excluding alleys.

Tree – a woody plant with leaves or needles that grows to achieve height usually above the human form, often providing shade. With the exception of evergreen trees, trees generally do not occupy a significant amount of ground plane area.

Turf – refers to a grouping of grasses that grow in very close proximity to form a living surface at the ground plane. Turf is generally an area of the ground plane intended to be/or could be walked on and when regularly mowed, forms a dense growth of leaf blades and roots.

Water Budget – an estimate of the total amount of gallons of water for irrigation purposes for the irrigation season. The water budget will use specifications provided within these Regulations and any additional information provided by the City, to calculate water usage by hydrozone to arrive at the total amount.

Weeds – weeds are defined by Westminster Municipal Code or State Statute.

Xeriscape – a term coined in Denver to describe landscaping where water efficiency is achieved. It does not mean that the landscape is only dry, or the landscape is all rock, or there is no lawn, or only native plants are used. Refer to the text within this document for a detailed description of landscaping using xeriscape principles.

Yard Area – all portions of a lot not covered by building footprint. Yard area is typically broken down to front, rear, and side yard areas. The definition of these areas shall be by interpretation of the City.

Year – for the purposes of these Regulations and calculation of water rates, a year is equivalent to a typical irrigation season that is from mid-April to mid-October (26 weeks).