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4.0 Introduction to Landscape Design Standards

4.1 Statement of Intent

The purpose of the following landscape standards is to provide supplemental requirements and criteria to the latest version of the City of Thornton Development Landscape Code and Standards and Specifications and to organize a framework in which the following goals are met.

- Create a landscape theme for Larkridge that recognizes Thornton's agricultural history and reflects Thornton's natural environment in the cultivated landscape.
- Insure consistency of design and materials throughout the site.
- Provide site orientation, direction, connection, a sense of scale, and a feeling of security for users.
- Enhance commercial and retail profitability.
- Create an aesthetically pleasing environment.
- Institute water-wise landscape principles and management techniques.
- Guide future Larkridge landscape design and approvals process.

These standards and guidelines will insure that quality landscaping will be integrated throughout the project during the development review process.

4.2 Landscape Objectives

Consideration shall be given to plant material types, growth rates, and canopy sizes in relationship to building location, signs, site lines, site utilities, sight triangles, view corridors, and parking. A variety of plant materials shall be incorporated into the project including indigenous drought-tolerant vegetation, flowering trees and shrubs, evergreen trees, accent plantings, and ground covers. Evergreen, deciduous trees and shrubs, flowering ornamental trees, grasses, and groundcovers will be used in combination to provide year around seasonal interest and layering while maintaining the functional requirements.

- Emphasize clusters of trees and shrubs in natural settings.

- Feature wide bands of shrubs to suggest drainage ways and irrigation ditches with expanses of ornamental and turf grasses to mimic prairie.
- Establish view corridors to the Front Range and the plains.

4.3 Landscape Concepts

- Reserve the richness of plant palette and hardscape materials for pedestrian entrance areas, public gathering spaces and retail front door areas.
- Shade trees in grates or built trellis structures provide a canopy within paved areas.
- Raised planters, pots of seasonal color and other hardscape accents create 'topography' and pedestrian seating areas and delineate the boundary of front door entrance areas.
- Water features draw pedestrians to public gathering spaces.
- Identify outside seating areas and view corridors.
- Plant similar clusters of large scale plant material to anchor and identify the built environment.
- Create a hierarchy of vehicle and pedestrian entry areas with a hierarchy of monumentation and plant material selection.
- Masses of evergreen trees and groups of deciduous trees with massed shrubs and wide areas of ornamental and turf grasses guide views to buildings, provide appropriate scale to buffer uses and establish foreground to screen or highlight building architecture and function.

5.0 Landscape Design Standards

5.1 Common Area Landscaping

The following landscape requirements shall be applicable for all landscape common areas.

- a) Common area landscaping shall have a minimum of one Tree Equivalent (TE) for every 300 square feet of area required to be landscaped.
- b) Reference the latest versions of the COT Development Landscape Code and Standards & Specifications for minimum requirements and criteria.
- c) A maximum of 50% of the total landscape area of each property may be planted with approved turf.

5.2 Public Rights-of-Way

The following additional landscape requirements shall be applicable for all areas within public rights-of-way.

- a) A minimum of 1.5 Tree Equivalents (TE) shall be required for each 50 lineal feet.
- b) Views into parking lots shall be screened from all public and private right of ways.
- c) Plant materials must be located such that a minimum two-foot clear zone behind the back of curb allows for car bumper overhang unless curb stops are utilized.
- d) Shrubs shall be massed in order to strengthen street edges and buffer parking lots.
- e) Medians in public rights-of-way shall be landscaped per COT Development Landscape Code or as approved in the Development Permit process.

5.3 Parking Lot Islands

The following additional landscape requirements shall be applicable for all landscaped parking lot islands.

- a) Plant materials must be located such that a minimum two-foot clear zone behind the back of curb allows for car bumper overhang unless curb stops are utilized.
- b) Shrubs shall be massed in order to strengthen street edges and buffer parking lots.
- c) At 18' and wider Islands, a 3' wide band of 3" to 6" diameter cobble mulch over filter fabric shall be provided behind the curb. Top of cobble shall not be higher than the adjacent top of curb. All cobble shall be hand laid with flat sides down. Interior to the cobble mulch shall be Fir Fiber wood mulch.
- d) At 9' and up to 18' wide Islands, a 2' wide band of 3" to 6" diameter cobble mulch over filter fabric shall be provided behind the curb. Top of cobble shall not be higher than adjacent top of curb. All cobble shall be hand laid with flat sides down. Interior to the cobble mulch shall be Fir Fiber wood mulch.
- e) Parking lot islands in front of all buildings shall be a minimum 18 feet wide and 18 feet long and contain a minimum of 3 TE per island or as approved in the Development Permit process.

5.4 Building Perimeter and Pad Site Foundations

The following additional landscape standards are applicable for commercial retail, inline tenant space, and pad site developments.

- a) Building perimeter landscaping shall provide layering and visual interest during all four seasons and shall include a combination of decorative planted pots, shade trees in tree grates, raised planters or pad site foundation planting beds. To provide visual interest, plants shall be selected from a variety of plant categories. The major categories are:
 - Deciduous flowering and evergreen shrubs
 - Multi-stemmed and/or single trunk ornamental trees and shrubs
 - Annuals and perennial flowering species
 - Woody ground covers
 - Shade trees
- b) Front door building perimeter areas consisting of hardscape between the building and the back of curb shall be planted with a minimum of 1 TE every 50 lineal feet of building perimeter as shade trees in grates, permanent planters, decorative planted pots or combination thereof.
- c) Trees located in pavement areas shall be planted in tree grates a minimum of 6' in diameter.
- d) Permanent decorative planted pots shall be a minimum of two-foot tall.
- e) Planters that will be located in pavement areas shall be a minimum of 4' wide and 18" high. Planter areas shall be located to strengthen pedestrian circulation, provide pedestrian refuge areas and transition grade.
- f) Building perimeter landscape design shall be coordinated with building construction documents in order to coordinate with doors, windows, signs, utilities, ramps, light poles and other features.
- g) Building perimeter landscape areas not covered in hardscape shall meet the common area landscaping requirement of 1 TE every 300 s.f.
- h) Major anchor tenants with specific requirements for no landscaping in front of their building may locate the building perimeter landscape requirements on the sides and rear of the building.

5.5 Service Area, Loading Dock & Utility Device Screening

- a) Service, loading and utility areas shall be screened by fences, walls, landscaping, berms, or any combination thereof.
- b) Planted areas must meet the common area landscaping requirement of 1 TE every 300 s.f.
- c) 75% of the required landscaping must be evergreen.
- d) Service, loading, and utility areas visible from residential areas shall be screened with a wall, berm, trellising or combination, in addition to landscape requirements.
- e) Service and loading areas shall be landscaped with upgraded landscape materials. See Landscape Hierarchy Map for landscape upgrade areas.

5.6 Detention, Retention, and Water Quality Ponds

Detention, retention and water quality ponds shall be integrated physically, functionally, and aesthetically into the adjacent landscape design. Vegetated slopes shall not exceed 4:1 and all pond turf areas shall be properly drained. Water quality enhancement areas within the bottom of the pond shall be planted with vegetation that is appropriate with the presence of saturated soils.

- a) Pond depth should be limited to not more than ten feet. Pond grading should be designed to accommodate access for maintenance equipment. Rock-scaped or riprap slopes are prohibited except when necessary for erosion control and when approved by the City of Thornton. Ponds shall be designed with natural sides and bottoms and shrub beds adjacent to the top for transition to traditional, cultivated landscapes. Wetland plantings in low spots will be encouraged.
- b) Additional landscaped requirements for areas surrounding Detention, Retention, and Water Quality Ponds are as follows:
 - The area within the tract surrounding the pond(s) shall be planted with a minimum of 1 TE/3000 square feet of tract area.
 - All natural seed areas shall be watered by a permanent automatic irrigation system.

5.7 Seeding of Future Development Areas

All future phased development areas disturbed during construction shall be seeded and stabilized to prevent wind and water erosion for the time the site remains without development. Temporary irrigation to establish seeded areas is required.

5.8 Plant Material List

Landscaping for the development shall include a variety of appropriate water-wise plant material that reflect a mix of canopy, understory, groundcover and turf that are hydrozone compatible and are chosen from the Larkridge Plant List or as approved in the Development Permit process.

5.9 Plant Material Standards & Upgrades

The location of plant material standards and upgrades is illustrated on the Landscape Hierarchy Map. Upgraded plant material sizes shall not receive additional credit toward the TE requirement, unless otherwise approved during the Development Permit process.

- a) Plant material for all landscape areas identified as Service Areas, Loading Docks, and Utility Device areas (blue) shall be installed in the following minimum sizes:
 - Deciduous and Ornamental trees - B&B, 3" caliper or 8' height clump.
 - Evergreen Trees - B&B, 8' to 12' height

- Deciduous and evergreen shrubs - #5 container
 - 50% of evergreen trees to have 12' height minimum
 - 75% of all trees to be evergreen
- b) Plant material for all landscape areas identified as Upgraded Landscape Areas (red) shall be installed in the following minimum sizes:
- Deciduous and Ornamental trees - B&B, 3" caliper or 8' height clump
 - Evergreen Trees - B&B, 8' to 12' height
 - Groundcover - #1 container
 - Deciduous and evergreen shrubs - #5 container
 - 50% of evergreen trees to have 12' height minimum
 - 50% of all trees to be evergreen
- c) Plant material for all other landscape areas shall be installed in the minimum sizes established in COT Development Landscape Code and as located on the Landscape Hierarchy Map.

5.10 Organic and Inorganic Mulches and Landscape Materials

The following mulches shall be used as described below:

- a) Perennial, groundcover and ornamental grass shrub beds shall include 3" depth Fir Fiber wood mulch without filter fabric. Re-apply wood mulch as necessary due to settlement.
- b) Landscape parking lot islands shall include a band of 3" to 6" diameter tan colored cobble mulch behind the curb over filter fabric. Cobble mulch shall be keyed-in with brown breeze crusher fines. Interior to the cobble mulch shall be 3" depth Fir Fiber wood mulch.
- c) Remaining planting beds shall include 1-1/2" diameter tan colored crushed river rock mulch with or without filter fabric, Fir Fiber wood mulch with or without filter fabric, or crusher fines as approved in the Development Permit process.
- d) Mulches shall match development type and samples shall be provided to Owner's Landscape Architect for review and approval prior to installation.

5.11 Organic Soil Amendments

All newly landscaped areas shall be amended with soil amendment, the amount and type of amendment based on representative site soil analysis. Soil amendment shall be incorporated a minimum of 6 inches deep and include the following:

- a) Soil Amendment rate: Minimum 4 cubic yards per 1000 s.f.
- b) Soil Amendment shall meet the following requirements:
 - Organic matter content: 30 to 50% (dry matter basis)
 - PH range: less than 7.5
 - Ammonia nitrogen: Max. 500 ppm
 - Salt content: max. 3.0 mmhos over 25c
 - Carbon / nitrogen ratio: 15-25

5.12 Drought Tolerant Turf Grass

All new landscape turf areas shall provide the following:

- a) 100% 'Pure Gold' Tall Fescue (or approved equal) sod. ('Pure Gold' Tall Fescue is designated as a low water-demand sod and shall be zoned separately from different water-demand plant material).
- b) Legacy Buffalo Grass sod, plugs, or approved equal may be used as an ornamental grass substitution for particular areas of landscape turf.

5.13 Landscape Design Requirements

Tree diversity requirements shall be met as follows: 10-19 trees (no more than 50% of any one species), 20 and over trees (no more than 33% of any one species).

5.14 Irrigation Design Requirements

- a) Trees in turf areas shall receive supplemental irrigation with drip irrigation on a separate zone.
- b) Low water-demand turf areas shall be zoned separately from different water-demand plant material areas.

Irrigation design and installation shall conform to requirements and criteria of the latest version of the City of Thornton Standards and Specifications or as approved in the Development Permit process.

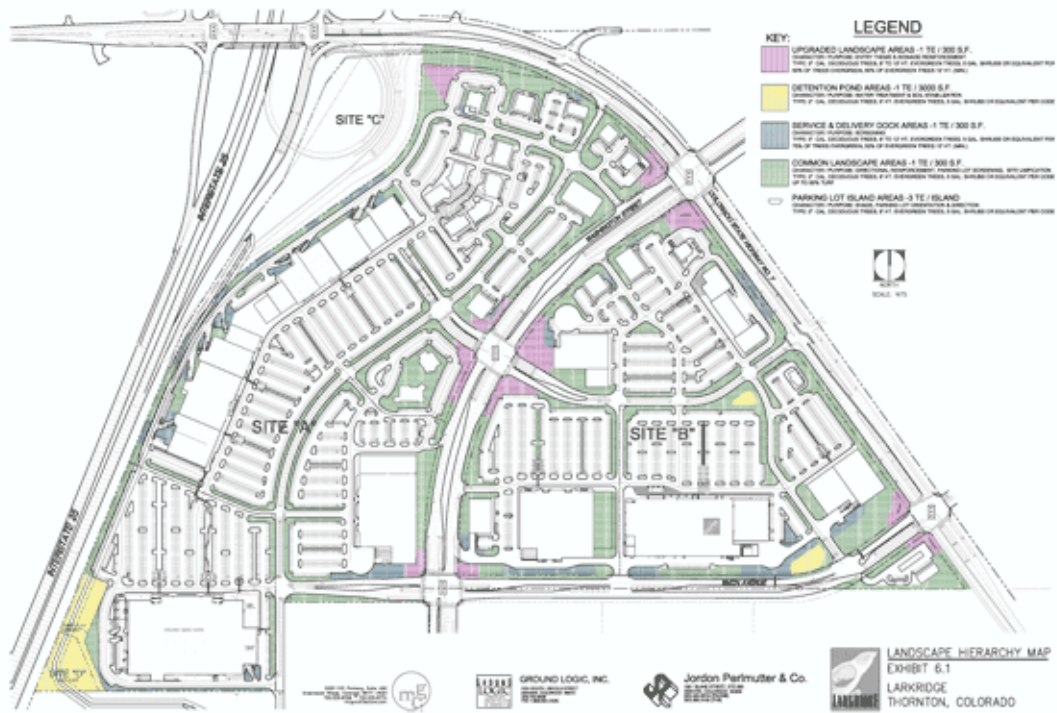
5.15 Landscape Maintenance

All landscaped areas shall be maintained in a neat, clean, and healthy condition and include the following:

- a) Mowing and fertilizing of Pure Gold Tall Fescue lawns:
 - Weekly mow all lawn areas during the warm seasons to a height of 2"-3½" .
 - Provide fertilizer applications in the spring and fall. Pure Gold Tall Fescue requires low to medium nitrogen application with 2-4 lbs. actual nitrogen per year.
- b) Pruning:
 - Follow the American Nurseryman's Association pruning standards and procedures.
 - Immediately remove all dead or dying branches and stems.
 - Tree branches shall be removed where they conflict with pedestrian or vehicular circulation, traffic signs, etc..
 - Removal of evergreen tree under-story branches is not recommended.
 - Perennials and ornamental grass shall be cut back in the spring.
 - Formal 'ball type' pruning of shrubs is discouraged.
- c) Winter watering & deep root feeding:
 - Provide winter watering of trees and shrubs up to 2 times a month, as necessary.
 - Provide deep root feeding of trees in the spring, as necessary.
- d) Other:
 - Dead plant materials shall be removed and replaced with originally specified and approved materials, per the COT Development Code.
 - Provide regular removal of trash and other debris throughout the site.
 - Trees shall be regularly inspected and pre-treated for diseases.
 - Regular removal of snow and ice at private roads, parking lots, and pedestrian access routes shall be provided.

6.0 Landscape Appendix

6.1 Landscape Hierarchy Map (insert)



6.2 Larkridge Approved Plant Material List (insert)

Larkridge Plant Material List I-25 / CDOT Frontage Area

Latin Name	Water-Demand	Common Name	Note
Shade Trees			
<i>Celtis occidentalis</i>	Low	Hackberry	
<i>Gleditsia triacanthos inermis</i>	Low	Thornless Honeylocust: Skyline, Shademaster	not in sod
<i>Gymnocladus dioicus</i>	Ultra Low	Kentucky Coffeetree	
<i>Quercus macrocarpa</i>	Low	Bur Oak	not in sod
Small Trees			
<i>Acer grandidentatum</i>	Low	Maple, Wasatch	
<i>Crataegus crus-galli 'inermis'</i>	Low	Thornless Cockspur Hawthorn	
<i>Crataegus ambigua</i>	Low	Russian Hawthorn	
<i>Crataegus viridis</i>	Low	Winter King Hawthorn	
<i>Koelreuteria paniculata</i>	Low	Goldenrain Tree	
<i>Quercus gambelii</i>	Ultra Low	Gamble Oak	
Evergreens			
<i>Juniperus chinensis</i>	Low	Spreading Juniper	
<i>Juniperus sabina</i>	Low	Spreading Juniper	
<i>Juniperus scopolorum, J.virginiana</i>	Low	Upright Junipers	
<i>Juniperus horizontalis</i>	Low	Spreading Juniper	
<i>Mahonia aquifolium</i>	Low	Oregon Grape Holly	
<i>Pinus aristata</i>	Ultra Low	Bristlecone Pine	
<i>Pinus nigra</i>	Low	Austrian Pine	
<i>Pinus ponderosa</i>	Ultra Low	Ponderosa Pine	
Shrubs Over Six Feet Tall			
<i>Chrysothamnus sp.</i>	Ultra Low	Rabbitbrush, tall	
<i>Cotoneaster lucidus</i>	Low	Peking Cotoneaster	
<i>Cytisus scoparius</i>	Low	Scotch Broom	Moonlight
<i>Forestiera neomexicana</i>	Low	Privet, New Mexico	
<i>Kolkwitzia amabilis</i>	Low	Beauty Bush	
<i>Ligustrum vulgare "Cheyenne"</i>	Low	Privet, Common Cheyenne	
<i>Mahonia aquifolium</i>	Low	Evergreen Oregon Grape Holly	

Larkridge Plant Material List I-25 / CDOT Frontage Area

Latin Name	Water-Demand	Common Name	Note
<i>Prunus americana</i>	Ultra Low	American Wild Plum	
<i>Prunus tomentosa</i>	Low	Nanking Cherry	
<i>Rhamnus frangula</i> "Columnaris"	Low	Tall Hedge Buckthorn	
<i>Rhus trilobata</i>	Ultra Low	Sumac, Three-leaf	
<i>Rhus typhina</i> , <i>R. glabra</i>	Ultra Low	Sumac, Staghorn & Smooth	
<i>Ribes aureum</i>	Ultra Low	Currant, Yellow Flowering	
<i>Sorbaria sorbifolia</i>	Low	Ural False Spirea	suckers
<i>Syringa vulgaris</i> varieties	Low	Common Lilac	purple colors
Shrubs Under Six Feet Tall			
<i>Aronia melanocarpa elata</i>	Low	Black Chokeberry	
<i>Caryopteris incana</i>	Low	Blue Mist Spirea	named variety
<i>Chamaebatiaria millefolium</i>	Ultra Low	Fernbush	
<i>Chrysothamnus</i> spp.	Ultra Low	Rabbitbrush, dwarf	
<i>Cotoneaster divaricatus</i>	Low	Cotoneaster, spreading	
<i>Cytisus purgans</i>	Low	Scotch Broom	Spanish Gold
<i>Fallugia paradoxa</i>	Ultra Low	Apache Plume	
<i>Mahonia aquifolium</i> "Compacta"	Low	Compact Evergreen Oregon Grape Holly	
<i>Perovskia atriplicifolia</i>	Low	Russian Sage	
<i>Rhus aromatica</i> 'Gro-Low'	Low	Sumac, Gro-low	
<i>Rhus glabra</i> cis-montana	Ultra Low	Sumac, Rocky Mountain	
<i>Ribes alpinum</i>	Low	Currant, Alpine	
<i>Rosa</i>	Low	Shrub Rose, many that grow on their own roots	
Grasses			
<i>Calamagrostis acutiflora</i> varieties	Low	Feather Reed Grass varieties	
<i>Erianthus ravannae</i>	Low	Plume Grass	
<i>Helictotrichon sempervirens</i>	Low	Blue Avena Grass	
<i>Miscanthus</i> spp	Low	Maiden Grass varieties	Adagio, Morning Light, Yaku Jima
<i>Panicum virgatum</i>	Ultra Low	Switchgrass	
<i>Schizachyrium scoparium</i>	Ultra Low	Little Bluestern	

Larkridge Plant Material List I-25 / CDOT Frontage Area

Latin Name	Water-Demand	Common Name	Note
Perennials & Groundcovers			
Achillea "Moonshine"	Low	Moonshine Yarrow	
Callirhoe involucrata	Ultra Low	Poppy Mallow / Wine Cups	
Mahonia repens	Ultra Low	Creeping Mahonia	receives TE credit
Nepeta x faassenii	Low	Catmint	seeds
Oenothera macrocarpa	Ultra Low	Evening Primrose, Missouri	receives TE credit
Papaver orientalis	Low	Oriental Poppy	
Saponaria ocymoides	Low	Rock Soapwort	
Solidago	Low	Goldenrod varieties	
Thermopsis divaricarpa	Ultra Low	Golden Banner	
Vinca minor	Low	Evergreen Periwinkle	receives TE credit
Vines			
Campsis radicans	Low	Trumpet Vine	
Clematis tangutica	Ultra Low	Yellow Lantern Clematis	
Hedera helix	Moderate	English Ivy	
Lonicera spp.	Moderate	Honeysuckle varieties	
Parthenocisus quinquefolia	Low	Virginia Creeper	

Larkridge Plant Material List INTERIOR OF SITE

Latin Name	Water-Demand	Common Name	Note
Shade Trees			
Acer platanoides	Moderate	Norway Maple	
Celtis occidentalis	Low	Hackberry	
Catalpa speciosa	Low	Western Catalpa	
Fraxinus americana	Moderate	Autumn Purple Ash	
Fraxinus pennsylvanica lanceolata	Low	Green Ash varieties	
Gleditsia triacanthos inermis	Low	Thornless Honeylocust: Skyline, Shademaster	not in sod
Gymnocladus dioicus	Ultra Low	Kentucky Coffeetree	
Quercus bicolor	Low	Swamp White Oak	
Quercus rubra	Moderate	Northern Red Oak	
Quercus macrocarpa	Low	Bur Oak	not in sod
Small Trees			
Acer ginnala	Low	Maple, Ginnala	
Crataegus crus-galli 'inermis'	Low	Thornless Cockspur Hawthorn	
Crataegus phaenopyrum	Low	Washington Hawthorn	
Crataegus viridis	Low	Winter King Hawthorn	
Koelreuteria paniculata	Low	Goldenrain Tree	
Malus spp.	Moderate	Crabapples	CSU fireblight resistant
Prunus nigra	Moderate	Princess Kay Plum	
Quercus gambelii	Ultra Low	Gamble Oak	
Syringa reticulata	Moderate	Japanese Tree Lilac	
Pyrus ussuriensis	Moderate	Pear, ornamental	
Evergreens			
Dwarf evergreens	Moderate	many varieties	
Juniperus chinensis	Low	Spreading Juniper	
Juniperus sabina	Low	Spreading Juniper	
Juniperus scopolorum, J.virginiana	Low	Upright Junipers	
Juniperus horizontalis	Low	Spreading Juniper	
Mahonia aquifolium	Low	Oregon Grape Holly	
Picea pungens	Moderate	Colorado Spruce	

Larkridge Plant Material List INTERIOR OF SITE

Latin Name	Water-Demand	Common Name	Note
<i>Pinus aristata</i>	Ultra Low	Bristlecone Pine	
<i>Pinus mugo</i>	Low	Mugo Pine: Big Tuna, Tannenbaum, Mops, Slowmound	
<i>Pinus nigra</i>	Low	Austrian Pine	
Shrubs Over Six Feet Tall			
<i>Buddleia davidii</i>	Low	Butterfly Bush	Black Knight
<i>Chrysothamnus</i> sp.	Ultra Low	Rabbitbrush, tall	
<i>Cornus alba</i>	High	Variegated Dogwood	Detention / wet areas only
<i>Cornus alternifolia</i>	High	Pagoda Dogwood	Detention / wet areas only
<i>Cornus sericea</i> 'Flaviramea'	High	Yellowtwig Dogwood	Detention / wet areas only
<i>Cornus sericea</i>	High	Redtwig Dogwood	Detention / wet areas only
<i>Cotoneaster lucidus</i>	Low	Peking Cotoneaster	
<i>Cytisus scoparius</i>	Low	Scotch Broom	Moonlight
<i>Hibiscus syriacus</i>	Low	Rose of Sharon	
<i>Kolkwitzia amabilis</i>	Low	Beauty Bush	
<i>Ligustrum vulgare</i> "Cheyenne"	Low	Privet, Common Cheyenne	
<i>Mahonia aquifolium</i>	Low	Evergreen Oregon Grape Holly	
<i>Prunus tomentosa</i>	Low	Nanking Cherry	
<i>Rhamnus frangula</i> "Columnaris"	Low	Tall Hedge Buckthorn	
<i>Ribes aureum</i>	Ultra Low	Yellow Flowering Currant	
<i>Syringa hyacinthiflora, vulgaris</i>	Low	Lilac	Pocahontas, purple colors
<i>Viburnum dentatum</i>	Moderate	Viburnum	Autumn Jazz, etc
<i>Viburnum lantana</i>	Low	Wayfaring Tree	
Shrubs Under Six Feet Tall			
<i>Aronia melanocarpa elata</i>	Low	Black Chokeberry	
<i>Caryopteris incana</i>	Low	Blue Mist Spirea	named variety
<i>Chamaebatiaria millefolium</i>	Ultra Low	Fernbush	
<i>Chrysothamnus</i> spp.	Ultra Low	Rabbitbrush, dwarf	
<i>Cornus serica</i> "Kelseyi"	High	Kelsey Dwarf Dogwood	wet areas
<i>Cotoneaster apiculatus, dammeri</i>	Moderate	Cotoneaster, Cranberry & Coral Beauty	
<i>Cotoneaster divaricatus</i>	Low	Cotoneaster, spreading	

Larkridge Plant Material List INTERIOR OF SITE

Latin Name	Water-Demand	Common Name	Note
<i>Cytisus purgans</i>	Low	Scotch Broom	Spanish Gold
<i>Genista tinctoria</i>	Low	Woadwaxen	Royal Gold
<i>Ligustrum vulgare</i> "Lodense"	Moderate	Privet, Lodense	
<i>Mahonia aquifolium</i> "Compacta"	Low	Compact Evergreen Oregon Grape Holly	
<i>Perovskia atriplicifolia</i>	Low	Russian Sage	
<i>Rhus aromatica</i> 'Gro-Low'	Low	Sumac, Gro-low	
<i>Rosa</i>	Low	Shrub Rose, many that grow on their own roots	
<i>Salix pupurea nana</i>	High	Dwarf Arctic Willow	
<i>Spirea</i> spp	Moderate	Goldflame, Neon Flash and limited others	
<i>Spirea</i> spp	Low	Snowmound, Anthony Waterer, Frobel, Threeleaf Spirea	
<i>Syringa patula</i> , <i>S. meyeri</i>	Low	Lilac, Dwarf Korean	
<i>Viburnum dentatum</i>	Moderate	Viburnum	Blue Muffin, etc
Grasses			
<i>Calamagrostis acutiflora</i> varieties	Low	Feather Reed Grass varieties	
<i>Erianthus ravannae</i>	Low	Plume Grass	
<i>Helictotrichon sempervirens</i>	Low	Blue Avena Grass	
<i>Miscanthus</i> spp	Low	Maiden Grass varieties	Adagio, Morning Light, Yaku Jima
Perennials & Groundcovers			
<i>Achillea</i> "Moonshine"	Low	Moonshine Yarrow	
<i>Alchemilla mollis</i>	Low	Lady's Mantle	
<i>Alyssum montanum</i>	Low	Mountain Basket of Gold	
<i>Anemone vitifolia</i> "Robustissima"	Moderate	Fall Grape-leaf Anemone	receives TE credit
<i>Aster novae-angliae</i> varieties	Low	New England Aster	
<i>Aster novi-belgii</i> varieties	Low	Dwarf Fall Asters	
<i>Callirhoe involucrata</i>	Ultra Low	Poppy Mallow/Wine Cups	
<i>Centranthus ruber</i>	Low	Red Valerian	
<i>Ceratostigma plumbaginoides</i>	Low	Plumbago	

Larkridge Plant Material List INTERIOR OF SITE

Latin Name	Water-Demand	Common Name	Note
Geranium varieties	Low	Cranesbill	Bevan, sangunium and other varieties
Hemerocallis	Moderate	Daylily varieties	receives TE credit
Iris siberica	Moderate	Iris, Siberian	
Lamium maculatum "White Nancy"	Low	White Nancy Nettle	
Mahonia repens	Ultra Low	Creeping Mahonia	receives TE credit
Oenothera macrocarpa	Ultra Low	Evening Primrose, Missouri	receives TE credit
Paeonia	Moderate	Karl Rosenfield, Sarah Bernhardt, Festiva maxima	
Papaver orientalis	Low	Oriental Poppy	
Rudbeckia fulgida "Goldstrum"	Moderate	Black-eyed Susan	receives TE credit
Salvia nemerosa	Low	Perennial Salvia	
Saponaria ocymoides	Low	Rock Soapwort	
Sedum spectabile	Low	Tall Sedum varieties	
Solidago	Low	Goldenrod varieties	
Vinca minor	Low	Evergreen Periwinkle	receives TE credit
Vines			
Campsis radicans	Low	Trumpet Vine	
Clematis varieties	Moderate	Hybrid Clematis	Jackman
Clematis tanguitica	Ultra Low	Yellow Lantern Clematis	
Hedera helix	Moderate	English Ivy	
Lonicera spp.	Moderate	Honeysuckle varieties	

Larkridge Plant Material List Detention Ponds

Latin Name	Water-Demand	Common Name	Note
Shade Trees			
<i>Celtis occidentalis</i>	Low	Hackberry	
<i>Gleditsia triacanthos inermis</i>	Low	Thornless Honeylocust: Skyline, Shademaster	not in sod
<i>Gymnocladus dioicus</i>	Ultra Low	Kentucky Coffeetree	
<i>Quercus macrocarpa</i>	Low	Bur Oak	not in sod
Small Trees			
<i>Acer ginnala</i>	Low	Maple, Ginnala	
<i>Crataegus ambigua</i>	Low	Thornless Cockspur Hawthorn	
<i>Crataegus phaenopyrum</i>	Low	Washington Hawthorn	
<i>Crataegus viridis</i>	Low	Winter King Hawthorn	
<i>Koelreuteria paniculata</i>	Low	Goldenrain Tree	
Evergreens			
<i>Juniperus chinensis</i>	Low	Spreading Juniper	
<i>Juniperus sabina</i>	Low	Spreading Juniper	
<i>Juniperus scopolorum, J.virginiana</i>	Low	Upright Junipers	
<i>Juniperus horizontalis</i>	Low	Spreading Juniper	
<i>Mahonia aquifolium</i>	Low	Oregon Grape Holly	
<i>Pinus aristata</i>	Ultra Low	Bristlecone Pine	
<i>Pinus mugo</i>	Low	Mugo Pine: Big Tuna, Tannenbaum, Mops, Slowmound	
<i>Pinus nigra</i>	Low	Austrian Pine	
Shrubs Over Six Feet Tall			
<i>Buddleia davidii</i>	Low	Butterfly Bush	Black Knight
<i>Cornus alba</i>	High	Variegated Dogwood	wet areas only
<i>Cornus sericea</i>	High	Redtwig Dogwood	wet areas only
<i>Cornus sericea 'Flaviramea'</i>	High	Yellowtwig Dogwood	wet areas only
<i>Cotoneaster lucidus</i>	Low	Peking Cotoneaster	
<i>Cytisus scoparius</i>	Low	Scotch Broom	Moonlight
<i>Hibiscus syriacus</i>	Low	Rose of Sharon	

Larkridge Plant Material List Detention Ponds

Latin Name	Water-Demand	Common Name	Note
<i>Kolkwitzia amabilis</i>	Low	Beauty Bush	
<i>Mahonia aquifolium</i>	Low	Evergreen Oregon Grape Holly	
<i>Prunus tomentosa</i>	Low	Nanking Cherry	
<i>Rhus trilobata</i>	Ultra Low	Sumac, Three-leaf	
<i>Syringa hyacinthiflora, S. vulgaris</i>	Low	Lilac, early, common	Pocahontas, purple colors
Shrubs Under Six Feet Tall			
<i>Aronia melanocarpa elata</i>	Low	Black Chokeberry	
<i>Caryopteris incana</i>	Low	Blue Mist Spirea	named variety
<i>Chamaebatiaria millefolium</i>	Ultra Low	Fernbush	
<i>Chrysothamnus</i> spp.	Ultra Low	Rabbitbrush, dwarf	
<i>Cornus serica</i> "Kelseyi"	High	Kelsey Dwarf Dogwood	wet areas only
<i>Cotoneaster divaricatus</i>	Low	Cotoneaster, spreading	
<i>Cytisus purgans</i> "Spanish Gold"	Low	Spanish Gold Scotch Broom	
<i>Genista tinctoria</i>	Low	Woadwaxen	Royal Gold
<i>Mahonia aquifolium</i> "Compacta"	Low	Compact Evergreen Oregon Grape Holly	
<i>Perovskia atriplicifolia</i>	Low	Russian Sage	
<i>Rhus aromatica</i> 'Gro-Low'	Low	Sumac, Gro-low	
<i>Ribes alpinum</i>	Low	Currant, Alpine	
<i>Rosa</i>	Low	Shrub Rose, many that grow on their own roots	
<i>Salix pupurea nana</i>	High	Dwarf Arctic Willow	wet areas only
<i>Syringa patula, S. meyeri</i>	Low	Lilac, Dwarf Korean	
Grasses			
<i>Buchloe dactyloides</i>	Ultra Low	Buffalo Grass	Legacy sod, plugs or equal
<i>Calamagrostis acutiflora</i> varieties	Low	Feather Reed Grass varieties	
<i>Helictotrichon sempervirens</i>	Low	Blue Avena Grass	
<i>Miscanthus</i> spp	Low	Maiden Grass varieties	Adagio, Morning Light, Yaku Jima
Perennials & Groundcovers			
<i>Achillea</i> "Moonshine"	Low	Moonshine Yarrow	

Larkridge Plant Material List Detention Ponds

Latin Name	Water-Demand	Common Name	Note
Alyssum montanum	Low	Mountain Basket of Gold	
Aster novi-belgii varieties	Low	Dwarf Fall Asters	
Callirhoe involucrata	Ultra Low	Poppy Mallow/Wine Cups	
Centranthus ruber	Low	Red Valerian	
Mahonia repens	Ultra Low	Creeping Mahonia	receives TE credit
Nepeta x faassenii	Low	Catmint	
Oenothera macrocarpa	Ultra Low	Evening Primrose, Missouri	receives TE credit
Salvia nemerosa	Low	Perennial Salvia	
Saponaria ocymoides	Low	Rock Soapwort	seeds
Solidago	Low	Goldenrod varieties	
Vinca minor	Low	Evergreen Periwinkle	receives TE credit
Vines			
Clematis tangutica	Ultra Low	Yellow Lantern Clematis	
Parthenocissus quinquefolia	Low	Virginia Creeper	

Larkridge Plant Material List ROW AREAS

Latin Name	Water-Demand	Common Name	Note
Shade Trees			
<i>Celtis occidentalis</i>	Low	Hackberry	
<i>Fraxinus americana</i>	Moderate	Autumn Purple Ash	
<i>Fraxinus pennsylvanica lanceolata</i>	Low	Green Ash varieties	
<i>Gymnocladus dioica</i>	Ultra Low	Kentucky Coffeetree	
<i>Quercus bicolor</i>	Low	Swamp White Oak	
<i>Quercus macrocarpa</i>	Low	Bur Oak	
Small Trees			
<i>Acer ginnala</i>	Low	Maple, Ginnala	
<i>Crataegus crus-galli 'inermis'</i>	Low	Thornless Cockspur Hawthorn	
<i>Crataegus phaenopyrum</i>	Low	Washington Hawthorn	
<i>Koeleruteria paniculata</i>	Low	Goldenrain Tree	
Evergreens			
<i>Juniperus chinensis</i>	Low	Spreading Juniper	
<i>Juniperus horizontalis</i>	Low	Spreading Juniper	
<i>Juniperus sabina</i>	Low	Spreading Juniper	
<i>Pinus aristata</i>	Ultra Low	Bristlecone Pine	
<i>Pinus nigra</i>	Low	Austrian Pine	
Shrubs Over Six Feet Tall			
<i>Cotoneaster lucidus</i>	Low	Peking Cotoneaster	
<i>Cytisus scoparius</i>	Low	Scotch Broom	Moonlight
<i>Hibiscus syriacus</i>	Low	Rose of Sharon	
<i>Mahonia aquifolium</i>	Low	Evergreen Oregon Grape Holly	
<i>Prunus tomentosa</i>	Low	Nanking Cherry	
<i>Ribes aureum</i>	Ultra Low	Yellow flowering Currant	
<i>Syringa hyacinthiflora, vulgaris</i>	Low	Lilac	Pocahontas, purple colors
<i>Viburnum dentatum</i>	Moderate	Viburnum	Autumn Jazz, etc.
<i>Viburnum lantana</i>	Low	Wayfaring Tree	
Shrubs Under Six Feet Tall			

Larkridge Plant Material List ROW AREAS

Latin Name	Water-Demand	Common Name	Note
Aronia melanocarpa elata	Low	Black Chokeberry	
Caryopteris incana	Low	Blue Mist Spirea	named variety
Chamaebatiaria millefolium	Ultra Low	Fernbush	
Chrysothamnus spp.	Ultra Low	Rabbitbrush, dwarf	
Cotoneaster divaricatus	Low	Cotoneaster, spreading	
Cytisus purgans	Low	Scotch Broom	Spanish Gold
Rhus aromatica 'Gro-Low'	Low	Sumac, Gro-low	
Rhus glabra cis-montana	Ultra Low	Sumac, Rocky Mountain	BOC only; suckers
Rosa	Low	Shrub Rose, many that grow on their own roots	
Syringa patula, S.meyeri	Low	Lilac, Dwarf Korean	
Viburnum dentatum	Moderate	Viburnum	Blue Muffin, etc
Grasses			
Calmagrostis acutiflora varieties	Low	Feather Reed Grass varieties	
Helictotrichon sempervirens	Low	Blue Avena Grass	
Perennials & Groundcovers			
Achillea "Moonshine"	Low	Moonshine Yarrow	
Anemone vitifolia "Robustissima"	Moderate	Fall Grape-leaf Anemone	receives TE credit
Aster novi-belgii varieties	Low	Dwarf Fall Asters	
Callirhoe involucrata	Ultra Low	Poppy Mallow / Wine Cups	
Centranthus ruber	Low	Red Valerian	
Ceratostigma plumbaginoides	Low	Plumbago	
Geranium varieties	Low	Cranesbill	Bevan, sangunieum and other varieties
Mahonia repens	Ultra Low	Creeping Mahonia	receives TE credit
Nepeta x faassenii	Low	Catmint	seeds
Oenothera macrocarpa	Ultra Low	Evening Primrose, Missouri	receives TE credit
Solidago	Low	Goldenrod varieties	
Vinca minor	Low	Evergreen Periwinkle	receives TE credit
Vines			

Larkridge Plant Material List ROW AREAS

Latin Name	Water-Demand	Common Name	Note
Lonicera spp.	Moderate	Honeysuckle varieties	

Larkridge Plant Material List STAND ALONE PAD SITES

Latin Name	Water-Demand	Common Name	Note
Shade Trees			
Acer platanoides	Moderate	Norway Maple	not within 15' of BOC
Fraxinus americana	Moderate	Autumn Purple Ash	
Fraxinus pennsylvanica lanceolata	Low	Green Ash varieties	
Gleditsia triacanthos inermis	Low	Thornless Honeylocust: Skyline, Shademaster	not in sod
Quercus macrocarpa	Low	Bur Oak	not in sod
Small Trees			
Acer ginnala	Low	Maple, Ginnala	
Crataegus crus-galli 'inermis'	Low	Thornless Cockspur Hawthorn	
Crataegus phaenopyrum	Low	Washington Hawthorn	
Prunus nigra	Moderate	Princess Kay Plum	
Pyrus ussuriensis	Moderate	Pear, ornamental	Prairie Gem 25'x25' or species 40'x30'
Quercus gambelii	Ultra Low	Gamble Oak	
Syringa reticulata	Moderate	Japanese Tree Lilac	
Evergreens			
Dwarf evergreens	Moderate	many varieties	
Juniperus chinensis	Low	Spreading Juniper	
Juniperus horizontalis	Low	Spreading Juniper	
Juniperus sabina	Low	Spreading Juniper	
Juniperus scopolorum, J. virginiana	Low	Upright Junipers	
Mahonia aquifolium	Low	Oregon Grape Holly	
Picea pungens	Moderate	Colorado Spruce	
Pinus aristata	Ultra Low	Bristlecone Pine	
Pinus mugo	Low	Mugo Pine: Big Tuna, Tannenbaum, Mops, Slowmound	
Pinus nigra	Low	Austrian Pine	
Shrubs Over Six Feet Tall			
Buddleia davidii	Low	Butterfly Bush	Black Knight

Larkridge Plant Material List STAND ALONE PAD SITES

Latin Name	Water-Demand	Common Name	Note
Cornus alba	High	Variiegated Dogwood	detention / wet areas
Cornus alternifolia	High	Pagoda Dogwood	detention / wet areas
Cornus sericea 'Flaviramea'	High	Yellowtwig Dogwood	detention / wet areas
Cornus sericea	High	Redtwig Dogwood	detention / wet areas
Cotoneaster lucidus	Low	Peking Cotoneaster	
Cytisus scoparius	Low	Scotch Broom	Moonlight
Hibiscus syriacus	Low	Rose of Sharon	
Kolkwitzia amabilis	Low	Beauty Bush	
Ligustrum vulgare "Cheyenne"	Low	Privet, Common Cheyenne	
Mahonia aquifolium	Low	Evergreen Oregon Grape Holly	
Prunus tomentosa	Low	Nanking Cherry	
Rhamnus frangula "Columnaris"	Low	Tall Hedge Buckthorn	
Syringa hyacinthiflora, vulgaris	Low	Lilac	Pocahontas, purple colors
Viburnum dentatum	Moderate	Viburnum	Autumn Jazz, etc.
Viburnum lantana	Low	Wayfaring Tree	
Shrubs Under Six Feet Tall			
Aronia melanocarpa elata	Low	Black Chokeberry	
Cornus serica "Kelseyi"	High	Kelsey Dwarf Dogwood	wet areas
Cotoneaster apiculatus, dammeri	Moderate	Cotoneaster, Cranberry & Coral Beauty	
Cotoneaster divaricatus	Low	Cotoneaster, spreading	
Cytisus purgans	Low	Scotch Broom	Spanish Gold
Genista tinctoria	Low	Woadwaxen	Royal Gold
Ligustrum vulgare "Lodense"	Moderate	Privet, Lodense	
Mahonia aquifolium "Compacta"	Low	Compact Evergreen Oregon Grape Holly	
Perovskia atriplicifolia	Low	Russian Sage	
Rhus aromatica 'Gro-Low'	Low	Sumac, Gro-low	
Ribes alpinum	Low	Currant, Alpine	
Rosa	Low	Shrub Rose, many that grow on their own roots	
Spirea spp	Moderate	Goldflame, Neon Flash and limited others	
Spirea spp	Low	Snowmound, Anthony Waterer, Frobel, Threeleaf Spirea	

Larkridge Plant Material List STAND ALONE PAD SITES

Latin Name	Water-Demand	Common Name	Note
Syringa patula, S.meyeri	Low	Lilac, Dwarf Korean	
Grasses			
Calmagrostis acutiflora varieties	Low	Feather Reed Grass varieties	
Erianthus ravannae	Low	Plume Grass	
Helictotrichon sempervirens	Low	Blue Avena Grass	
Miscanthus spp	Low	Maiden Grass varieties	Adagio, Morning Light, Yaku Jima
Perennials & Groundcovers			
Achillea "Moonshine"	Low	Moonshine Yarrow	
Alchemilla mollis	Low	Lady's Mantle	
Anemone vitifolia "Robustissima"	Moderate	Fall Grape-leaf Anemone	receives TE credit
Aster novae-angliae varieties	Low	New England Aster	
Aster novi-belgii varieties	Low	Dwarf Fall Asters	
Callirhoe involucrata	Ultra Low	Poppy Mallow / Wine Cups	
Centranthus ruber	Low	Red Valerian	
Ceratostigma plumbaginoides	Low	Plumbago	
Delosperma nubigenum, cooperi	Low	Iceplant varieties	
Galium odoratum	Moderate	Sweet Woodruff	
Geranium varieties	Low	Cranesbill	Bevan, sangunieum, macrorrhizum and other varieties
Hemerocallis	Moderate	Daylily varieties	receives TE credit
Iris siberica	Moderate	Iris, Siberian	
Lamium maculatum "White Nancy"	Low	White Nancy Nettle	
Mahonia repens	Ultra Low	Creeping Mahonia	receives TE credit
Oenothera macrocarpa	Ultra Low	Evening Primrose, Missouri	receives TE credit
Paeonia	Moderate	Karl Rosenfield, Sarah Bernhardt, Festiva maxima	
Papaver orientalis	Low	Oriental Poppy	
Rudbeckia fulgida "Goldstrum"	Moderate	Black-eyed Susan	receives TE credit
Salvia nemerosa	Low	Perennial Salvia	

Larkridge Plant Material List STAND ALONE PAD SITES

Latin Name	Water-Demand	Common Name	Note
Saponaria ocymoides	Low	Rock Soapwort	
Sedum spectabile	Low	Tall Sedum varieties	
Solidago	Low	Goldenrod varieties	
Tanacetum densum amani	Low	Partridge Feather	
Teucrium canadensis	Low	American Germander	
Vinca minor	Low	Evergreen Periwinkle	receives TE credit
Waldsteinia fragaroides	Low	Barren Strawberry	
Vines			
Campsis radicans	Low	Trumpet Vine	
Clematis	Moderate	Hybrid Clematis	Jackman
Hedera helix	Moderate	English Ivy	
Lonicera spp.	Moderate	Honeysuckle varieties	