GONZAGA UNIVERSITY LANDSCAPE MASTER PLAN NARRATIVE

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GONZAGA UNIVERSITY LANDSCAPE MASTER PLAN

Existing Conditions--General Description

The Gonzaga University campus is located on the banks of the Spokane River, at the edge of one of the oldest neighborhoods in the city. The landscape of the campus includes native type riparian landscape plantings and ornamental plantings used within the neighborhood. As the campus has developed and expanded, landscape remnants of the residential neighborhood have been integrated into the campus landscape. The resulting landscape combines rigid gridline street patterns and remnants of regularly spaced trees at the neighborhood interface, transitioning to a very organic and informal system of pathways, plantings and outdoor spaces near the river. As part of the 1995 Master Plan process, the University has recognized a need to create a strong visual edge to the Campus. The goal of the landscape master plan is to provide guidance in creating the visual edge to the campus in addition to providing direction on the reinforcement of the inner campus landscapes.

An inventory of the existing landscape was completed in the Summer and Fall of 1995. The Campus landscape reflects the many different needs of a typical university campus. Major open green spaces include 'formal' spaces (the Quad, Foley Center), 'informal' spaces (Johnston Mall, Jepson, Jundt Center), and 'play' spaces (Martin Field, Hamilton practice field, and Mulligan Field). Pedestrian circulation in and around these spaces transition through different hierarchies of spatial configurations, from narrow earthen paths or concrete walks to broader paved walkways of asphalt, concrete or concrete brick pavers. All of these spaces and circulation systems are defined and enhanced by the use of plant materials of many different types, textures and sizes.

The inventory completed in 1995 focused on major landscape plantings, including trees, major shrubs, and outdoor spaces. The inventory was completed to provide input on the current types of plantings used on-campus. Currently, both the landscaping and the pedestrian circulation system at the campus 'inner core' is visually very significant. Mature deciduous and evergreen trees frame the Administration Building, clearly define pedestrian pathways, and project a strong sense of place.

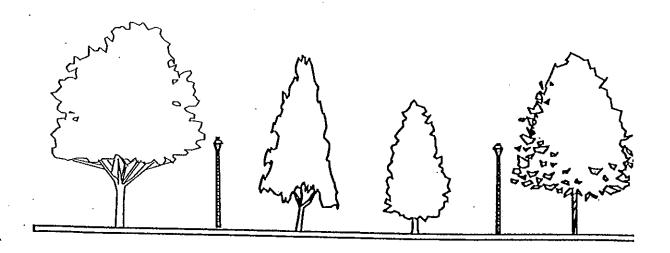
In a contrast of landscape style, properties outside of the campus core are landscaped with 'residential' type landscapes, which does not provide a dominant or unifying theme or combination of design elements that project a campus identity. Visitors to the campus do not have a clear sense of the boundaries of the campus, entries to the campus, or an interface for pedestrian circulation.

Existing Street Tree Types

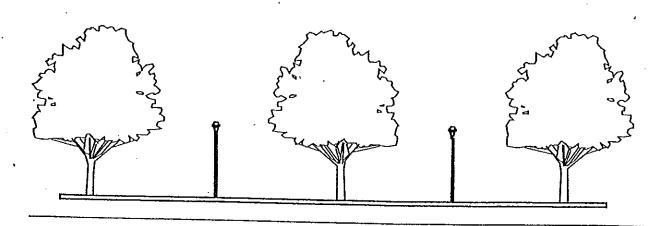
Currently, several different types of street trees are used within the Gonzaga area. Until very recently, there were no City of Spokane guidelines on types of trees planted within rights of way, which has led to inappropriate varieties planted within the neighborhood. Additionally, street trees available at the time of the development of the neighborhood are often inappropriate by modern standards, due to weak wood, pavement upheaval, or sheer size. Tree plantings that focus on a limited number of species are more subject to massive infestation or disease damage, as well, as evidenced by the Dutch Elm disease effect on the urban landscape. Existing street tree types include the following:

Botanical Name	Size
Robinia pseudoacacia Acer pseudoplatanus Acer platanoides Tilia cordata	large large medium to large medium medium
	Robinia pseudoacacia Acer pseudoplatanus Acer platanoides

The street tree plantings within the neighborhood do not reflect a strong pattern or project a defined edge of the campus. If this type of planting scheme had been maintained at the campus edge, it would have appeared similar to the following graphic.



Elevation of Street Trees in a Random Pattern of Sizes and Varieties



Elevation of Street Trees in Uniform Pattern

Current City of Spokane Street Tree Guidelines

Current City of Spokane guidelines for street trees provide four classifications for street tree plantings within the right of way. Class I planting areas are not less than 5' wide, with tree heights to 25'. Class II planting areas are between 5' and 8' wide, with heights from 25' to 50'. Class III planting areas are between 8' and 12' wide, with heights from 50' to 70'. Class IV planting areas

are over 12' wide, with heights over 70'. A complete listing of trees recommended for planting by class is as follows:

Class	I-5'	Planting	Area
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Common Name	Botanical Name
Columnar Hornbeam American Hornbeam Columnar Beech Tricolor Beech	Carpinus fastigiata Carpinus caroliniana Pagus sylvatica 'Fastigiata' Fagus sylvatica 'Tricolor'
Vesuvius Flowering Plum Columnar Flowering Cherry Sargent's Cherry Flowering Pear	Prunus cerasifera 'Krauter Vesuvius' Prunus serrulata 'Amanagowa' Prunus sargentii 'Columnaris' Pyrus calleryana 'Cleveland Select', 'Chanticleer', 'Capitol'

Class II-5'-8' Planting Area:	
Common Name	Botanical Name
Lavelle or Carriere Hawthorn English Hawthorn varieties	Crataegus lavallei
Flowering Purple Plum	Crataegus lavigata 'Paul's Scarlet', 'Double White', Double Pink', 'Crimson Cloud'. Prunus cerasifera 'Thundercloud', 'St. Helens'.
Flowering Pear varieties Little Leaf Linden varieties	Pyrus calleryana 'Bradford', 'Aristocrat' Tilia cordata 'Greenspire', 'Glenleven', 'Chancellor',
Eastern Redbud Flowering Cherry varieties	Cercis canadensis
Birch Bark Cherry Sargent Cherry	Prunus serrulata 'Kwanzan', 'Shirofugen' Prunus serrula Prunus serrula
Red Maple varieties	Prunus sargentii Acer rubrum 'Armstrong II', 'Bowhall', 'Gerling', 'Karpic',
Katsura Tree	'October Glory', 'Red Sunset', 'Scalon Red', 'Scarlet Sentinel', 'Schlesinger', 'Shade King'. Cercidiphyllum japonicum

Class III-8'-12' Planting Area:

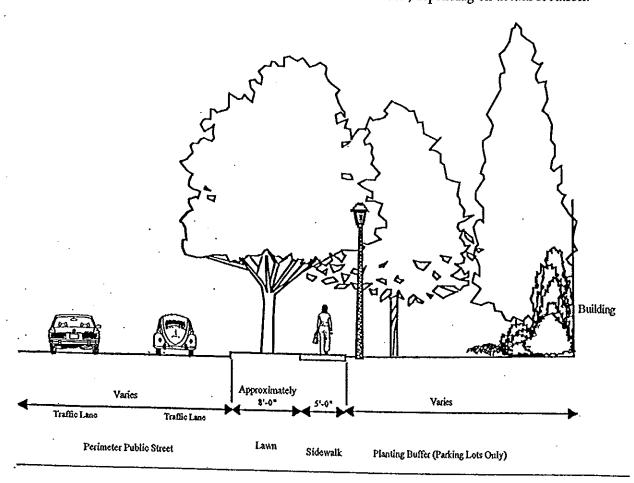
Common Name	Botanical Name
Autumn Blaze Red Maple Norway Maple varieties	Acer rubrum 'Autumn Blaze' Acer platanoides 'Columnare', 'Crimson Kng', 'Deborah',
Sycamore Maple 'atropurpureum' Sentry Sugar Maple varieties Scarlet Oak Honeylocust varieties	Acer saccharum 'Monumentale', 'Seneca Chief' Quercus coccinea Gleditsia tricanthos inermis 'Shademaster'. 'Skyline'
American Sweetgum varieties	Liquidambar styraciflua 'Burgundy', 'Festival', 'Palo Alto'

Class IV-12 and Over Planting Area:

Common Name English Oak varieties Northern Red Oak American Linden 'Redmond' Willow Oak	Botanical Name Quercus robur 'Fastigiata', 'Skymaster', 'Westminster Globe' Quercus rubra
	Tilia americana 'Redmond', 'Fastigiata Pyramidal' Quercus phellos

Proposed Landscape Edge and Street Trees for Gonzaga University
The Gonzaga Campus includes street tree planting areas in all four of the above classifications, from less than 5' wide to over 12' wide. As such, many different sizes and types of trees could be

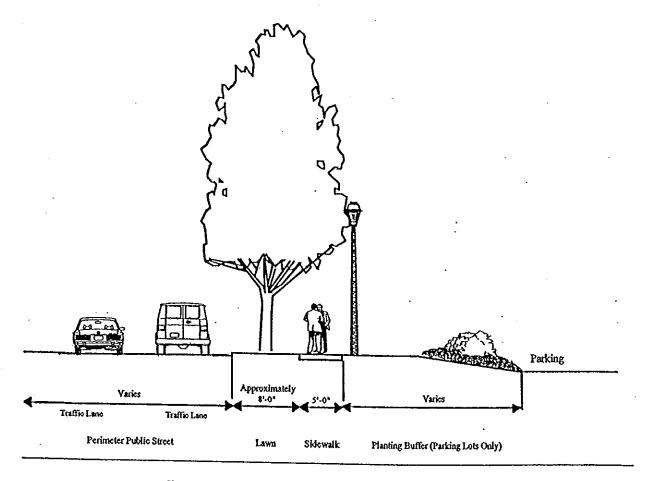
used along streets within the campus boundary, which would result in a weak definition of the edge of the campus due to a wide variety of street tree types and sizes. Different types of general 'edge' conditions have been identified in order to provide a stronger campus edge through the use of a series of unified landscape treatments. These edge types include the following general classifications, with numerous combinations or variants of each, depending on actual location.



Cross Section of Typical Public Edge at Building

Public Edge at Buildings

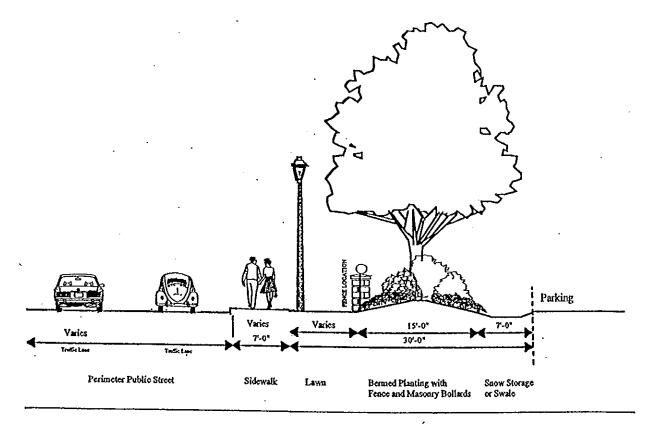
The landscape edge treatment at buildings on the perimeter of the campus comprises a large percentage of the campus edge. Street trees and pedestrian lights are provided in landscaped areas on either side of a sidewalk, with a 'front yard' landscape of lawn. A foundation planting next to the building would include a variety of evergreen and deciduous shrubs of various types. Trees next to the buildings might include larger evergreens, to unify the outer edges of the campus with a current landscape theme of the campus core, which includes evergreen trees near major buildings. This concept creates an open 'safe' area next to public sidewalks, and attempts to minimize 'hiding places' within the landscape.



Cross Section of Typical Public Edge at Parking Area

Public Edge at Parking

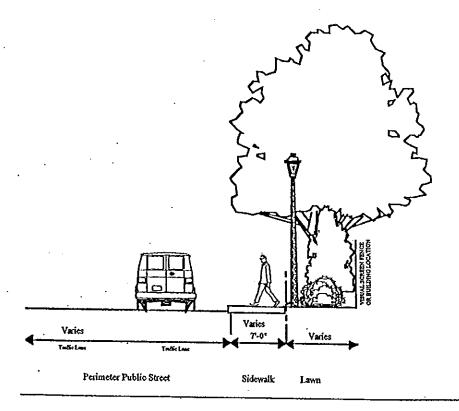
A variation on the previous concept, the landscape edge treatment at parking, open spaces and play fields allows views deeper into the campus. Street trees and pedestrian lights are provided in landscaped areas on either side of a sidewalk, again with a 'front yard' landscape of lawn. Parking areas could be lower than the adjacent sidewalk, and landscape buffers installed near the fronts of vehicles in the lot. The passerby would be able to look over the parking area to the inner campus beyond. Play fields or open spaces would not require a shrub edge, and so a continuous lawn area would extend from sidewalk into the open green space.



Cross Section of Typical Screened Edge

Screened Edge

For areas that require screening, including primarily parking lots, a combination of street trees, pedestrian scale lights, and a see-through iron fence within a landscape bed could be used to filter views of grade-level parking areas. The iron fence in this case provides a 'hard' edge that would focus pedestrian crossings at specific areas and provide the passerby visual cues to the edge of the campus.



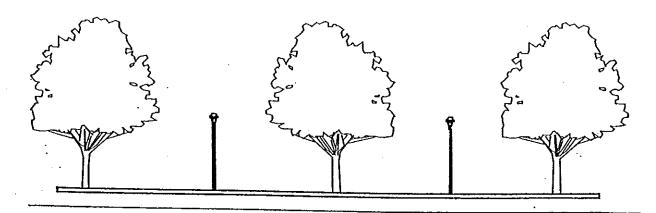
Cross Section of Typical Secure Edge

Secure Edge

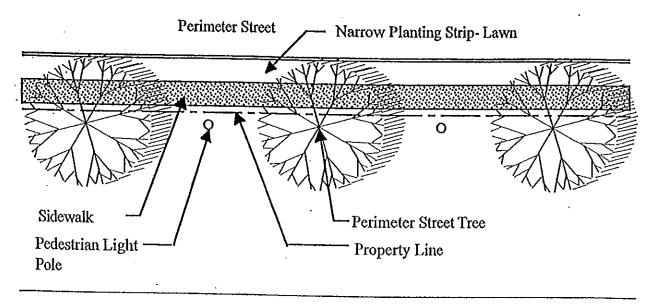
Several areas on the campus edge are very utilitarian in nature and require full screening of the adjacent use. These areas, primarily storage yards or shop facilities, also have very little area available for landscaping next to these buildings. In these small areas, a narrow landscape bed could be created, which would include primarily evergreen shrubs and narrow or columnar street trees. Pedestrian scale lighting could also be installed in these areas.

Proposed Street Tree Palette

The proposed street tree palette for the University must include several different sizes of trees, due to planting space restrictions and overall restrictions in growth area and the desire to provide visual accents at campus entries. Visual unification of the campus edge could be assisted by the use of a single tree type and size, or a combination of similar sized tree types. Given the City of Spokane's current guidelines, the installation of a 'monoculture' planting (single variety, such as Maple) is not recommended for street tree plantings. A compromise that could fulfill the design intent of providing visual unification while introducing a variety of tree species could include several similar sized trees, planted either within the right of way or on University property. Diversity of species could be completed in a 'block by block' fashion, and where there is inadequate right of way for street tree plantings of the type desired, these trees could be installed on private property adjacent to the right of way. The following graphic illustrates the strength of the street tree pattern through the use of one type of tree or similar sized trees.



Typical Street Tree Planting at Campus Perimeter-Elevation



Typical Street Tree Planting at Campus Perimeter-Plan View

Street Trees for Campus Perimeter

Several different tree types have been used in recent projects along the campus perimeter, including Red Maple varieties and Flowering Pear varieties. The creation of a visually strong edge of the campus is best accomplished by the use of medium to large deciduous trees, either within the right of way or immediately adjacent to the right of way, when used in combination with other landscape amenities, such as walls, fences, pedestrian lights, etc. The implementation of a dominant street tree planting at the campus edge will limit the planting of smaller trees in narrow planting strips, with planting limited to 8'-12' or 12' wide and over (City of Spokane Class III and Class IV, respectively) planting strips or areas out of the right of way, but adjacent to the street. The following list identifies trees that are recommended for use as the campus perimeter tree plantings.

Common Name

Habit/Characteristics

Campus Perimeter Street Trees, Class III Planting Areas
Armstrong Red Maple

Bowhall Red Maple

Columnare Maple October Glory Maple

Red Sunset Maple Scanlon Red Maple

Schlesinger Maple

Autumn Blaze Red Maple

Norway Maple varieties Sycamore Maple 'atropurpureum'

Sentry Sugar Maple varieties Scarlet Oak Tall, very narrow, red fall color Tall, cone-shaped, red-orange fall color.

Tall, broadly columnar.

Tall, round-headed, last to color in fall.

Colors earlier than 'October Glory.' Compact, conical, to 35' x 16' spread.

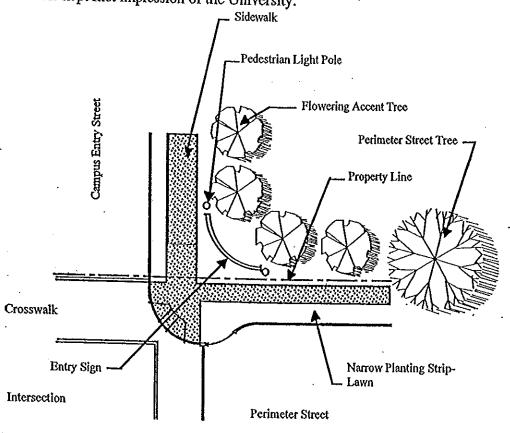
Tall, broad, fast-growing, orange-red fall color.

fall color.
Upright branching, broad oval, brilliant orange red in fall.
Broad crowned, dense foliag
Oval to rounded form. No particular fall color.

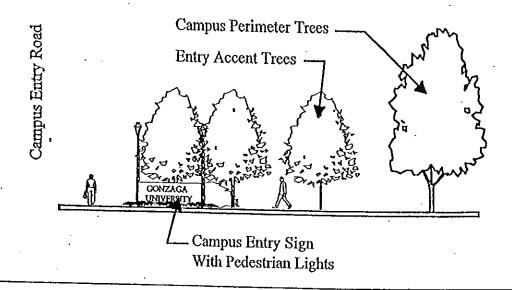
Narrow form, spectacular fall color. High, light and open branching. Bright scarlet in fall. Campus Entry Accent Trees and Landscaping

Major entries to the University must be identified through the use of signing, lighting, landscaping, and furnishings. Four major entries have been identified, at the intersections of Sharp Avenue and Addison, Desmet and Hamilton, Ruby and Desmet, and the south entry from Trent Avenue.

A major entry must include substantial campus signing, providing clear identification of the campus to the public. The entry treatment should set the theme for the experience of the visitor, and reflect the materials that are found on campus. Architectural elements are dominated by red brick, stone or concrete materials. Landscape elements should include representative 'edge' street trees, flowering accent trees, and upgraded landscape plantings. In addition, furnishings such as pedestrian-scale light poles should be provided. The purpose of the 'accent' materials is to present a very attractive and well-kept first impression of the University.



Typical Campus Entry with Accent Trees-Plan View



Typical Campus Entry with Accent Trees-Elevation

Campus Entry Accent Trees and Landscaping

The concept for major entries include a combination of 'accent' trees, signing, pedestrian scale furnishings, a higher level of lighting, and additional detailed landscaping. The visual cues given to the visitor to the campus are part of the creation of the sense of place and entry to the University, and are often the first impression the visitor has of the University. The following list of campus entry accent trees is provided as a guide from which one or several varieties of accent tree may be selected for use at the campus entry points.

Common Name

Campus Entry Accent Trees Vesuvius Flowering Plum Columnar Flowering Cherry Columnar Sargent Cherry

Flowering Pear

Lavelle or Carriere Hawthorn

English Hawthorn varieties

Flowering Purple Plum

Flowering Pear varieties

Little Leaf Linden varieties

Habit/Characteristics

Smaller growing plum, upright habit. Flowers pink and profuse, April-May Attractive flowers, bark and foliage (See 'Sargent Cherry for additional description) Dark green leaves, white flowers,

purple/red in fall.

Dark green leaves, bronze red after sharp frost, white flowers with red persistent berries.

Low branching, round headed tree with clustered flowers in spring and showy fruit in fall.

Purplish red leaves, single pink flowers, upright spreading, broadly

oval to rounded oval.

Upright branching habit, abundant white flowers in spring, excellent fall coloring.

Densely pyramidal, dark green, heart shaped leaves, fragrant summer

flowers.

Flowering Cherry varieties

Birch Bark Cherry

Sargent Cherry

Kwanzan: Stiffly upright, inverted cone shaped, deep pink flowers, red leaves.
Shirofugen: Wide horizontal

Shirofugen: Wide horizontal branching, double pink to white flowers.

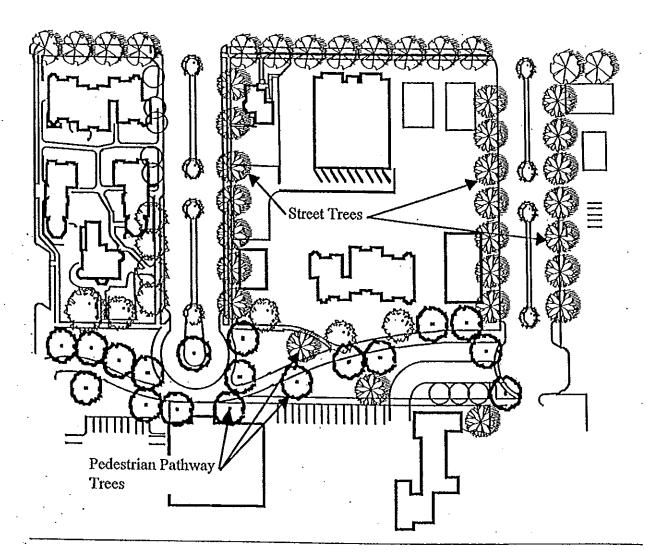
Broad vase shaped, yellow fall color, bark is mahogony red with high

sheen

Single pink flower, upright spreading branches, rounded crown. Excellent fall color varies from orange to red.

Street Trees for Interior Streets and Campus

Interior streets and the Campus area should be landscaped with a variety of tree types and sizes, depending on specific adjacent project design needs and opportunities. From the structured perimeter landscape design, the landscape transitions to a more 'organic' form toward the center of the campus, with subtle patterns and less dominant landscapes. Focus is directed toward the academic buildings, with the landscaping supporting views and perceptions of the campus as an academic institution. This design concept reflects the need to provide a strong sense of pedestrian connection within an organic campus layout with visual emphasis on the academic buildings as key to the pedestrian experience.



Interior Street and Pedestrian Pathway Planting Concept--Plan View

To implement this design concept, interior streets and major pedestrian pathways should be landscaped with trees in a regular 30' to 45' spacing pattern. The patterning could include a specific tree variety in a semi-formal layout, transitioning to different varieties or specimen trees near major buildings or open spaces. Other elements in this landscape design concept include pedestrian lighting standards, benches, trash receptacles, etc. Tree selections include those previously listed as street trees, in addition to those listed here:

Ash/Beech/Birch/Hornbeam Green Ash

Moraine Ash

Marshall's Seedless Ash

Purple Beech Water Birch

European Hornbeam varieties

Columnar Hornbeam

Maples
Silver Maple

Variegated Boxelder

Norway Maple varieties

Oaks Pin Oak

English Oak

Shademaster Honeylocust Imperial Honeylocust

Skyline Honeylocust Sunburst Honeylocust

Flowering Trees
Flowering Crabapple varieties
Redspire Flowering Pear

Autumn Blaze Flowering Pear

Blireana Flowering Plum

Amur Chokecherry

Mayday Tree

Compact, oval crown, dense twiggy structure. To 30-40 feet high.
Neat, symmetrical, uniform bright yellow in fall. To 40' high.
Large glossy dark green leaves.
Moderate growth to 30-40 feet high.
Bronze to purple leaf color
Bark pinkish in youth, to grey brown in age, bark peels. Very fast growth when young.
Moderate growth to 25-30 feet,
Round headed.
Very narrow in youth, more oval in maturity.

Past growth to 100 feet high, somewhat weak wooded. Fall color yellow to scarlet.
Creamy white/green leaves, large pendant clusters of white fruit.
Moderate growth to 60'. Many varieties with differing characteristics. Green flowers in spring. Subject to aphid infestation resulting in 'honeydew' dripping on surfaces and vehicles.

Moderate to rapid growth to 60 to 80 feet, slender pyramidal habit when young. Russet brown in fall and winter.

To 90 feet with short trunk. Very wide open head in maturity.

Darker green than species, 35' to 70'.

Tall, spreading, symmetrical, gives heavier shade than other varieties.

Pyramidal and symmetrical.

Golden yellow new foliage. Subject to wind breakage.

To 15 to 25 feet. Dark green glossy leaves, clustered white flowers. Similar to 'redspire'. Excellent fall color.
To 30 feet. Reddish purple leaves, green bronze in summer. Profuse flowers in spring.
To 25-30 feet. Yellowish, peeling bark, small white flowers.
Moderate growth to 30 feet. Open habit when young, dark green leaves.

Evergreen Trees for On-Campus Use

Evergreen trees, especially Douglas Fir and Colorado Spruce are a defining element in the mature landscape in the campus core. Evergreen trees are primarily planted adjacent to large buildings near blank building walls and in open spaces as part of a 'natural' grove of trees, or as 'specimen' plantings used as an accent in the landscape. The following palette of evergreen trees has been assembled as a guideline for future project plant material selection.

•	
Common Name	Habit/Characteristics
Evergreen Trees	Truote Characteriores
Douglas Fir	Honally to at least 70 feet Dark
	Usually to at least 70 feet. Dark
•	green needles, pyramidal when
White Fir	young.
	Commonly grown as a Christmas
	tree, can grow quite large. Silvery
Grand Fir	green needles.
Oluld I II	One of the largest firs, glossy green
Noble Fir	needles.
140016 L/II	Upright needles, medium to large
	tree. Commonly grown as a
L'adamata Din.	Christmas tree.
Lodgepole Pine	Slow growth to 70 feet. Open
Dente Pi	branched, very hardy.
Ponderosa Pine	Plated bark. Native to Spokane area.
61 . 1 ml	Bushy at all ages.
Scotch Pine	Straight and pyramidal in youth,
,	irregular with age. To 50-70 feet.
Eastern or Western White Pine	Fine, long, soft needles, rapid
<u> </u>	growth. Bluish green.
Colorado Blue Spruce	Bluish/white sharp needles. Very
	pyramidal and symmetrical.
Colorado Green Spruce	Green sharp needles. Very
-	pyramidal and symmetrical.
Norway Spruce	Fast growth, deep green needles
Engelmann Spruce	Densely pyramidal, deep green.
•	Branched to the ground.
Western Red Cedar varieties	Scale like leaves, broad spreading and
	columnar varieties available.
Lawson Falsecypress	To 60 feet, pyramidal.
Golden Lawson Falsecypress	To 30 feet, soft fronds, new growth
· -	yellow, older growth blue-green.
American Arborvitae	To 40-60 feet, upright, open growth,
·	light to medium green with flat needle
•	like leaves. Small cones.
Canadian Hemlock	Smaller tree or hedge. Very soft light
	green needles. Grows with multiple

stems. Protect from drying winds,

FOUNDATION PLANTING GRAPHIC (NOT COMPUTE)

Foundation and Shrub Plantings

Foundation and shrub plantings are the framework of the landscape around structures. Because the University population is on campus during the winter months, special emphasis must be placed on providing landscape interest during the winter months. The following plant palette has been assembled as a guideline for future project plant material selection, and should be used with the understanding that the majority of landscape materials selected per project should be evergreen. Refer to Sunset Western Garden Book latest edition for Habit/Characteristic descriptons.

Common Name

Evergreen Shrubs

Arborvitae/False Cypress

American Arborvitae varieties

Hinoki False Cyress varieties

Juniper

Juniper--Armstrong, Ames, Pfitzeriana, Japanese Garden Juniper, Bar Harbor, Tamariscifolia, Western Redcedar

Yew

English Yew varieties

Irish Yew

Cotoneaster

Praecox Cotoneaster

Cranberry Cotoneaster

Pine/Spruce

Dwarf Mugho Pine

Dwarf Eastern White Pine

Norway Spruce varieties

Birds Nest Spruce

Broadleaf Evergreens

Oregon Grape varieties

Rhododendron, H-1

Boxwood

Holly

Kalmia

Common Name

Flowering Deciduous Shrubs

Azalea

Beatrix Farrand Forsythia

Tatarian Honeysuckle

Sweet Mockorange

Common Lilac

Flowering Quince

Beautybush

Cistena Plum

Potentilla

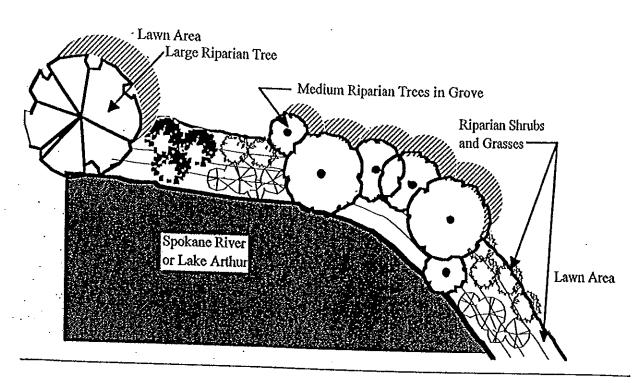
Spirea, Anthony Waterer, Limemound, Swan Lake, Goldflame, Bridalwreath, Vanhoutte

Rose varieties

Viburnum varieties

Riparian Plantings

Riparian plantings are defined as those plantings that occur naturally near water, either along riverbanks, streams, ponds, or wetlands. Important for habitat, the plants, trees and grasses are also important for bank stabilization and maintaining water quality. The plants by nature require little if any maintenance, and if designed and planted properly, riparian plantings can help limit damage caused by wild geese and ducks. Geese and ducks prefer open lawn areas away from medium to tall grasses, reeds, and sedges, where predators could hide. Native type plantings installed along formerly grassy shores have been an effective control against excessive geese and duck populations in ornamental landscapes.



Riparian Planting at Water's Edge-Plan View

Riparian Plantings--Specific Recommenations

The following list includes many types of riparian plant materials that could be combined to create a native-type landscape on the southern edge of the campus. Many of these materials are currently present in the area, either native or installed as part of the 1994 River Walk project.

Common Name

Riparian Plantings

Trees (Large)

Black Cottonwood

Quaking Aspen

Western Water Birch

Willows (Large)

Trees (Small-Medium)

American Arborvitae

Crabapple

English Hawthorn

Maheleb Cherry

Mountain Ash

Mountain Maple

Oriental Cherry

Red-Osier Dogwood

Russian Olive

Serviceberry

Sumac

Willows (Medium)

Shrubs (Large) Black Current

Chokecherry

Elderberry

Red-Flowered Currant

Vibumum

Shrubs (Small)

Clematis

Huckleberry

Oregon Grape

Snowberry

Spirea Wildrose

Willows