Chapter 8 – Streetscape Management

The purpose of the Streetscape chapter is to provide guidance for street frontage improvements, including: trees, landscaping, irrigation, infrastructure, soils and architectural elements such as, paving, benches, garbage receptacles, lighting and pedestrian amenities. This chapter presents streetscape designs concepts for 5 major categories of City Rights of Way, including: Central Business District, Retail & Commercial Centers, Buffer/Transition Areas, Boulevards and Natural streetscapes. This chapter also includes guidelines for the construction and maintenance of medians, planters, planter strips and tree wells.

Street trees and landscaping provide green-infrastructure and are vital to City efforts for stormwater detention, they soften noise and glare, while also providing beauty, reducing stress and improving livability within our community. A city or town is a community ecosystem – a place where the natural environment and the built environment meet and interact. Bellevue’s natural areas, wetlands and open spaces, both public and private, provide the environmental backbone to our community, an urban forest. An integral component of the urban forest and community ecosystem are the trees and landscaping in the Right-of-Way.

The application of this chapter ensures the streetscape environment is attractive, functional and links the public streets together as an integral component of the urban forest. Well designed streets are vital to the economic, social and environmental well-being or our urban environment. As a technical support document to the Land Use Code, it is to be used to evaluate new development, redevelopment projects,
Notes:

Transportation Capital projects and Parks and Utilities maintenance practices within the Right-of-Way.


8.2 Definitions

**Certified Arborist** – An individual who has demonstrated knowledge and competency through obtainment of the current International Society of Arboriculture arborist certification, or who is a member of the American Society of Consulting Arborists.

**Certified Forester** – An individual who has a professional degree from an accredited forestry program and has demonstrated the education and knowledge required by the Society of American Foresters (SAF) to be certified through the SAF Certified Forester Program.

**Dead Tree** – A tree that is dead or that has been damaged beyond repair or is in an advanced state of decline (where an insufficient amount of live tissue, green leaves, limbs or branches, exists to sustain life) and has been determined to be such by a certified forester or certified arborist. If the tree has been determined to be dead, removal may be permitted by either the Land Use Code or Clearing & Grading Code.

**Diameter at Breast Height (DBH)** – The diameter of the tree trunk at four and one-half feet (or 54 inches) above natural grade level. The diameter may be calculated by using the following formula: DBH = circumference at 4.5-feet above grade times 3.14. To determine the DBH of multi-trunk trees or measuring trees on slopes, consult the current *Guide for Plant Appraisal*, published by the Council of Tree and Landscape Appraisers.

**Right-of-Way** – All public streets and property dedicated to public use
for streets together with public property reserved for public utilities, transmission lines and extensions, walkways, sidewalks, bikeways or equestrian trails.

**Significant Tree** – A healthy evergreen or deciduous tree, eight inches in diameter or greater, measured four feet above existing grade. (BCC 20.50.046)

**Snag** – Any standing dead tree.

**Street Frontage** – Means any part of private or public property which borders a public street.

**Street Tree** – Any tree or large shrub growing within the public right-of-way. In some cases, property lines lie several feet behind the sidewalks. A Right-of-Way Use Permit from the City of Bellevue Transportation Department is required prior to any work on or around these trees.

**Topping** – The reduction of a tree’s size using heading cuts that shorten limbs or branches back to a predetermined crown limit. Topping is not an acceptable practice. *(ANSI A300 - 2001)*

**Tree Appraisal** – A method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood or community. When required, a certified arborist or forester determines the appraisal by adjusting a tree’s basic value by its condition, location and species using the most recent edition of the *Guide for Plant Appraisal*, published by the Council of Tree and Landscape Appraisers.

## 8.3 Background

The integration of landscaping into the urban design is essential in the City’s efforts to maintain the beauty and livability of our city. Vegetation provides form, color, texture, scale and is a unifying element to the variety of buildings and hard surfaces in the city. As development and urbanization increase, the value of each tree in softening the harshness of our man-made environment increases. Privacy and land use screening may also be gained through landscape treatments along streets and sidewalks, as well as providing a basic connection with nature and heightened pleasure in our surroundings. The City of Bellevue has an essential role and extends much effort to improve and maintain the street infrastructure and its overall appeal to the community.
The Comprehensive Plan provides the following policies, which lay the foundation for the City’s street tree and arterial landscape program:

**POLICY UD-14.** Encourage seasonal color plantings in public and semi-public places.

**POLICY UD-15.** Use landscape design that is urban in character in more urban settings and use natural landscape design in more suburban settings.

**POLICY UD-16.** Exemplify the Pacific Northwest character through the retention of existing vegetation and through use of native plants in new landscaping. Encourage water conservation in landscape designs.

**POLICY UD-17.** Consider the maintenance of existing and added vegetation in site design and development.

**POLICY UD-18.** Preserve significant trees and mature vegetation, with special consideration given to the protection of groups of trees and associated undergrowth, specimen trees and evergreen trees.

**POLICY S-DT-21.** Improve the street environment and appearance for use as public open space.

To achieve the goals and adhere the policies of the Comprehensive Plan, the following Bellevue City Codes are applicable.

- Land Use Code 20.25
- Clearing and Grading 23.76
- Transportation Development 14.60
- Parks and Facilities 3.42
- Parks and Facilities 3.43
- Trees Weeds and Vegetation 14.06
- Right-of-Way Use 14.30
- Cable Franchise 5.30.440
Streetscape Design

Understanding the relationship and interaction of activities within the right-of-way is vital to the successful design of streets and their frontage improvements. The design of streetscapes and their associated elements is the area where public and private interests combine to create the identity of a neighborhood or commercial area. There are many aspects of the right-of-way to consider when designing a streetscape. The following are some of the characteristics that affect how a particular streetscape is designed, constructed and used by citizens:

- Width of sidewalk
- Bus stops
- Commercial and residential density
- Pedestrian traffic volume
- Parking requirements and restrictions
- Vehicular traffic intensity
- Bicycle lanes
- Overall right-of-way width
- Number of traffic lanes
- Storm drainage
- Overhead and underground utilities

The Right-of-Way, streetscape zone, includes a variety of elements including sidewalks, tree wells and planting strips, street furniture, lighting, traffic signal structures and signage. Streetscape trees and landscape plantings require proper growing conditions for tree and plant health, longevity and coexistence with other City infrastructure. To guide the City’s Land Use Code and ensure consistency and continuity of street frontage improvements, 5 streetscape design category concepts have been developed for application throughout the City of Bellevue.
Streetscape Design Categories

Category 1 – Central Business District (CBD) Regulated by Land Use Code (20.25.060)

The intent of this concept is to provide guidance for right-of-way in the Central Business District requiring trees and landscaping that are installed in connection with an adjoining development or with the improvement of the roadway.

Applicability – These guidelines should apply to all trees and landscaping located within the public right-of-way from the back of curb to the inside edge of the sidewalk.

The intent is to visually soften the urban environment and create spaces that are comfortably sized for human use in highly developed urban areas within the City, provide separation between vehicular and pedestrian traffic, define, create and reinforce spaces and corridors created by buildings and other features.

Design Specifications – Tree and landscaping improvements shall be implemented based on the following:

- Tree species shall conform to the CBD tree listings in Plate B.
- Deciduous trees shall be planted at 25’ minimum to 30’ maximum spacing and no closer than 3.0 feet from the face of the curb edge.
- Minimum tree size is 3” caliper with a minimum vertical tree branch clearance of 8’ at a distance of 3’ from the root collar.
- Planting pits shall be a minimum of 5’ x 5’ or 4’ x 6’ and include a tree grate.
- Shrub or ground cover plantings should be incorporated where
feasible and have a mature height of 30” above the roadway or less where visibility concerns are identified (see “site distance” guidelines).

- Flowering annual or perennial plants may be incorporated in high visibility areas.
- Trees and landscaping should include an automated irrigation system (see irrigation design standards).
- Art may be included as a design element.
**Category 2** – Retail & Commercial Centers (e.g. Factoria, Crossroads, Overlake)

This concept visually softens the urban environment with tree and shrub plantings to create spaces that are comfortably sized for human use, buffer adjacent land uses, to provide separation between vehicular and pedestrian traffic, to define, create and reinforce spaces and corridors created by buildings and other features.

**Applicability** – These guidelines apply to all trees and landscaping located within the public right-of-way from the back of the curb to the inside edge of the sidewalk adjacent to retail and commercial centers outside of the CBD requiring trees and landscaping that are installed in connection with adjoining development or with the improvement of the roadway.

**Design Specifications** – Tree and landscaping improvements shall be based on the following:

- Species shall conform to the City of Bellevue designated street trees list.
- Deciduous trees shall be planted at 25' minimum to 30' maximum spacing (deviation to this requirement is permitted at street-lights, driveways, and street openings) and no closer than 2.5 feet from the face of the curb edge.
- Trees and landscaping should be planted in the middle of a 4' minimum planting strip.
- Planting space should be a minimum of 4' x 6' x 4' deep, or 5' x 5' x 4' deep and not have a tree grate.
- Minimum tree size is 2 inch caliper with a minimum vertical tree branch clearance of 8’ at 2.5’ radius from the root collar.
- Shrub or ground cover plantings should be incorporated where feasible and have a mature height of 30” or less where visibility concerns are identified (See “site distance” guidelines).
- Flowering annual or perennial plants may be incorporated in high visibility areas.
- Trees and landscaping should include an automated irrigation system (see irrigation design standards).
- Art may be included as a design element.
**Category 3 - Buffer/ Transition Areas** (e.g. McCormick Park, NE 12 St. b/w Bellevue Way & 112th Ave. NE)

Where commercial areas meet residential land uses, the character of the planting area within the right-of-way provides a transition. Wide planter strips separate pedestrians from vehicles and also provide screening and buffering to residential areas.

**Design Specifications** – Tree and landscaping improvements shall be based on the following:

- The minimum planting strip width is 5 feet and linearly continuous, wider is preferred, 8 feet is ideal.
- The planting strip shall be located between the curb and the sidewalk.
- The minimum tree size is 2 inch caliper.
- Variation in tree spacing may be appropriate.
- The species shall conform to the City of Bellevue designated street tree list.
Category 4 – Boulevards (e.g. 148th Ave, NE 8th St., Bel-Red Road)

This concept creates visually appealing connections between activity centers and open space. The use of medians, wide planting strips and large trees that provide canopy enclosure over the street gives a parkway appearance to these streets.

Design Specifications – Tree and landscaping improvements shall be based on the following:

- Large trees are to be used for boulevard planting.
- The street shall be characterized by the use of median and planting strips.
- A greater variety of tree forms and sizes and other vegetation.
- Group large trees with interconnecting canopies wherever possible. Planting design will provide for adequate visibility at intersections, crosswalks and areas where alertness and attention are desired. (See “site distance” guidelines)
- The minimum tree size is 2 inch caliper.
Notes:

- Where boulevards pass through commercial areas, street trees may be planted in formal regimented plantings within the sidewalk or planting strips, or in planting pits with tree grates, consistent with other design categories.

**Category 5 - Natural** (e.g. Lake Hills Connector, Forest Drive SE)

These streets are primarily vegetated by native plants that retain the natural character associated with the Puget Sound’s native landscape. This concept provides a smooth transition from suburban to rural land uses and retains native vegetation in a system of connected wildlife corridors.
**Design Specifications** – Tree and landscaping improvements shall be based on the following:

- Path or sidewalks should meander and be the maximum distance possible from the roadway.
- Native plants should be used in irregular spacing and clumped into groups of similar species.
- Permanent irrigation systems are not generally necessary.

Temporary irrigation shall be used for 3-5 years until plant roots are established.
Site Preparation

With proper planning, trees and plants not only survive, but thrive, in urban areas. Many species can withstand air pollution, temperature extremes and desiccating winds, but to do so, their roots must have a suitable environment for active growth and absorption of water and nutrients.

Plants, especially trees, are amazingly tenacious and often live in seemingly impossible urban conditions. When they fail, the problem usually begins beneath the soil surface. Proper site preparation at the onset of a planting project results in lower maintenance costs, safer trees, greater longevity, less conflict with surrounding infrastructure and more complete environmental, economic and social benefits than could otherwise have been achieved.

On some sites, the modification of its soil and drainage capabilities may be the only solution to successfully growing any trees, while on other sites it may increase the opportunities for diversified species selection.

Three basic needs of roots must be met when preparing sites for trees and plants:

1. Tree roots need oxygen, so aeration of the soil must be provided.
2. They need an adequate, but not excessive, supply of water, so the rate of water drainage away from the roots should be controlled.
3. Trees need a sufficient volume of soil in which their roots can grow, so a planting area of adequate proportions, with adequate nutrients, should be provided.

Meeting these needs is especially difficult when the surrounding area is covered by impermeable paving or heavily compacted soil, which results in restricted air and water movement and a limited amount of available rooting space. By carefully planning for a below ground environment where the air-water balance is most favorable, deeper root systems will develop, resulting in less damage to sidewalks from surface roots and better access to water during dry periods.

Urban soils are usually highly disturbed and as a result there may be extreme differences between the site soil, the soil that is used as backfill, and the soil contained in the root ball or container. The interfaces created by these adjacent, dissimilar soils may result
from differences in texture, structure and organic matter. Since water may not readily penetrate these interfaces, moisture extremes often occur between the three soils. Saturation or drought may result, thereby causing acute stress and sudden death of newly transplanted trees.

Replaced or amended soil should be placed over as extensive an area as possible, to a minimum depth of 24", to allow for the eventual spread of the mature root system. The native and amended soil should be thoroughly mixed at both the bottom and side interfaces so that there is a gradual blending of the two. This blending of adjacent soils will allow for better root penetration into the surrounding native soil.

Moisture problems within the planting pit may not be the sole result of soil interfaces or impermeable barriers. The existing soil may be poorly drained because it is compacted or because its texture makes it naturally so. Drainage capabilities can be analyzed by testing the planting pit for its rate of percolation. If the rate is inadequate, some form of remedial drainage system should be incorporated into the hole, such as sumps. Since poor drainage is probably the most rapid destroyer of trees in the urban environment, it is vital to their health and survival that drainage problems be corrected before planting.

Structural Soil

Structural Soil Material Mix

- Structural Soil is a consistent even distribution of its components. The ratio of components may vary and may require adjustment to ensure soil volume is adequate to fill all the voids in the stone.

- The following is a recommended base ratio of materials for structural soil:
  - 4 cu meter of aggregate stone.
  - 1.5 meter of growing medium.
  - 2 kg stabilizer.
  - Water as required.
  - The amount of water required will vary according to moisture present in growing medium.
  - The stone, growing medium and stabilizer product are to be combined into a homogeneous mixture.
Growing Medium

The growing medium within the structural soil mix shall meet the requirements of the following table:

<table>
<thead>
<tr>
<th>PROPERTIES OF GROWING MEDIUM FOR “STRUCTURAL SOIL”</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEXTURE: Particle Size Classes by the Canadian System of Soil Classification</td>
</tr>
<tr>
<td>Gravel: greater than 2 mm – less than 75mm</td>
</tr>
<tr>
<td>Sand: Greater than 0.05 mm – less than 2mm</td>
</tr>
<tr>
<td>Silt: Greater than 0.002 mm – less than 0.05mm</td>
</tr>
<tr>
<td>Clay: less than 0.002</td>
</tr>
<tr>
<td>Clay &amp; Silt Combined</td>
</tr>
<tr>
<td>ACIDITY (pH)</td>
</tr>
<tr>
<td>SALINITY: Saturated extract conductivity shall not exceed;</td>
</tr>
<tr>
<td>ORGANIC CONTENT: Percent of Dry Weight (%)</td>
</tr>
</tbody>
</table>

Notes:

- Clean stone of high angularity is required.
- Stone dimension aspect ratio should approach 1:1:1 with a maximum of 2:1:1 (length: width: depth)
- Single size stone, 60mm to 75mm clear sieve designation: Blasted Quarry Rock.
- Aggregates to be free of any foreign elements or material.
- Aggregate quality: Material shall be sound, hard, durable, free from salt, thin, elongated or laminated particles, organic material, clay lumps or material, or other substances that would act in a deleterious manner for use intended.

Soil Stabilizer

- A non-toxic organic binder, for example: the Natural Solution as available from Sport Turf Inc., Telephone: (604) 850-7857.

Filter Fabric

- After adequate compaction of the structural soil is confirmed, nonwoven filter fabric is to be installed as a separation layer directly above the compacted structural soil mixture.
- Filter fabric to conform to the following ASTM designations:
### Subgrade
- The subgrade is to be graded to provide for trench depths as required. Subgrade of areas designated as ‘Structural Soil’ are to be prepared to ninety-five percent (95%) Modified Proctor Density and shall be free of stones, debris, root branches, toxic materials, building materials and other deleterious materials.
- Subgrade is to slope to subsurface drain lines where provided.

### Mixing
- Mixing is to be performed on a clean, flat, hard, level surface using appropriate soil mixing equipment.
- Over handling can result in separation of the growing medium from the stone.
- Mix ingredients to the proportions indicated in the table: Structural Soil Material Mix.

### Placement
- Structural Soil should be moist, but not saturated with water when placed.
- Place Structural Soil in designated location in lifts not to exceed 600mm.
- Structural Soil is to be compacted as required to achieve the equivalent of 95% Modified Proctor Density.
- After approval of Structural Soil mixture compaction, install 600mm Filter Fabric.
- Overlap of all fabric seams and beyond edge of Structural Soil to be provided.

### Finish Treatment
- Granular base and paving surface to be placed on filter fabric on
Structural Soil. Compaction of the Structural Soil base is to be consistent with surrounding granular base materials.

Construction Detail Examples Below

1. Planter Strip w/Structural Soil (elevation)
2. Planter Strip w/Structural Soil (plan view)
3. Tree Grate w/Structural Soil (note: Use specified planting mix in tree pit)

![Figure 1: Planter Strip w/Structural Soil (elevation)](image1)

![Figure 2: Planter Strip w/Structural Soil (plan view)](image2)
Figure 3: Tree Grate w/Structural Soil (note: Use specified planting mix in tree pit)
Notes:

**Planting Pits and Sidewalks**

Many planting pits are designed within an area which is to be completely covered by pavement. The soil which surrounds the planting pit is compacted to a bulk density which meets engineering standards for capacity and load. This process of compaction severely reduces the pore spaces in the adjacent soil, leaving the tree with little other alternative than to rely upon the limited reserves of air, moisture and nutrients within the planting pit. These restricting conditions within the rooting environment may have an immediate impact on the establishment of the plant in the new site, or may impose long-term limitations on plant health.

Methods for sidewalk construction have been modified over the last few years to provide conditions more compatible to root growth. These techniques are now becoming standard in many urban settings and they may provide more appropriate solutions than the typical methods. A structural soil mix, sometimes called engineered or load-bearing soil, offers an alternative for planting sites and under sidewalks. Structural soil uses angular stones in the planting mix under the sidewalks that can be compacted to provide the structural support required by sidewalk engineers but be open enough to provide adequate drainage and aeration for trees.

Root barriers have also been used as a means of forcing tree roots to grow at lower soil depths in hopes of reducing sidewalk damage. With sufficient soil volume available, the root barriers will act to deflect the roots horizontally back into the area prepared for tree growth. It is important to note that much of the sidewalk damage incurred occurs within five to eight feet of the base of larger tree species. This area is referred to as the zone of rapid root taper and often enlarges to form a large buttress. The best way to avoid conflict between a tree's buttress roots and the sidewalk is to design a planting and paving plan which includes ample soil area for the desired tree species.

**Irrigation Systems**

An automated irrigation system is recommended to supplement the water supply. Urban planting sites have restricted soil and water volumes making well placed and well-timed irrigation essential in successful urban plantings.
Sight Distance

Sight distance is the distance a driver can see oncoming traffic or pedestrians without obstruction while at an intersection or driveway. Sight distance or ‘street intersection sight obstruction’ is defined under section 14.60.240 and 14.60.241 of the Transportation Code (Title 14). Following in brevity is the general sight distance lines allowable under the transportation code; please refer to the transportation code for precise content or further details.

For intersections on major streets and arterials or intersections from minor streets to major streets, the setback line at which point measurements are taken is to be located 14 feet back from the edge of the approaching lane of travel (or bike lane). Measurements are taken from this point to the center of the approaching lane of travel with distances based on the speed limit as follows:

- 40 MPH – 410 Feet
- 35 MPH – 360 Feet
- 30 MPH – 300 Feet
- 25 MPH – 250 Feet

At the discretion of the City Traffic Engineer should unmovable obstacles exist, the distance setback line may be reduced to 10 feet from the lane of travel with the following distances:

- 40 MPH – 325 Feet
- 35 MPH – 250 Feet
- 30 MPH – 200 Feet
- 25 MPH – 150 Feet

For intersections at minor streets, the above distances should be used with the setback line measured at 14 feet from the lane of travel. As with major intersections and at the discretion of the City Traffic Engineer, the setback can be reduce to 10 feet with the distances remaining the same.

Additional information for other circumstances such as uncontrolled intersections, yield intersections and definitions can be found under the City of Bellevue Transportation Code (Title 14).
Species Selection

Species selection should be based on more than aesthetic considerations. Species that adapt well to their site and fulfill their landscape function are extremely important to the success and maintenance of a planting. A plant species should be selected on the basis of functional uses, growth characteristics, site adaptation and the amount of care it will require. It is important to plant the right tree in the right place. The following table may be used as a guide in selecting the right tree:

<table>
<thead>
<tr>
<th>Tree Selection Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feature</strong></td>
</tr>
<tr>
<td><strong>Rate of Growth</strong></td>
</tr>
<tr>
<td><strong>Wood Strength</strong></td>
</tr>
<tr>
<td><strong>Rooting</strong></td>
</tr>
</tbody>
</table>
| **Plant Features** | - **Leaves**: Color, size, persistence  
  - **Thorns and prickly foliage**: Enhanced security vs. maintenance problems  
  - **Flowers and fruit**: Aesthetic consideration, wildlife habitat. Potentially increased maintenance. |
| **Climatic Adaptation** | - Plant hardiness and local minimum temperatures  
  - Moisture – natural or irrigated  
  - Light – reflect or allow for winter heating  
  - Wind – deflect or channel wind patterns |
| **Soils** | Poor soils can cause failure of planting. Amendment not desirable or feasible. Match plant to soil condition. |
| **Air pollution** | Choose trees with appropriate tolerance level. |
| **Pest Resistance** | Resistant plant material will reduce maintenance. |
| **Native Plants** | Native or indigenous plants may not perform as well as exotic or non-native species. Most urban landscape sites are no longer “native.” Soils, microclimates and water regimes have changed. |
| **Selecting Quality Stock** | Selection of quality planting stock is as important to success as selection of proper species, planting and maintenance. Root and shoot quality can determine not only performance but also survival. |
| **Root Defects** | Kink roots, girdling (circling roots) can eventually “choke” a tree. |
| **Top & Trunk Characteristics** | - Height-to-Caliper ratio (see ANSI Z60.1 specs.)  
  - Crown configuration  
  - Branching pattern |
# City of Bellevue Designated Primary Street Trees

<table>
<thead>
<tr>
<th>Location/Description</th>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>100th Ave NE – Main St to NE 8th St</td>
<td>Fraxinus oxycarpa ‘Flame’</td>
<td>Flame Ash</td>
</tr>
<tr>
<td>100th Ave NE – NE 8th St to NE 24th St</td>
<td>Pyrus calleryana ‘Chanticleer’</td>
<td>Chanticleer Pear</td>
</tr>
<tr>
<td>108th Ave SE – Main St to Bellevue Way SE</td>
<td>Zelkova serrata ‘Village Green’</td>
<td>Village Green Zelkova</td>
</tr>
<tr>
<td>108th Ave NE – Northup Way to NE 40th St</td>
<td>Quercus palustris</td>
<td>Pin Oak</td>
</tr>
<tr>
<td>112th Ave NE – NE 12th to NE 24th St</td>
<td>Quercus coccinea</td>
<td>Scarlet Oak</td>
</tr>
<tr>
<td>116th Ave NE – NE 8th St to NE 12th St</td>
<td>Platanus x acerfolia ‘Bloodgood’</td>
<td>Bloodgood London Planetree</td>
</tr>
<tr>
<td>116th Ave NE/SE – SE 8th St to NE 8th St</td>
<td>Liquidambar styraciflua</td>
<td>American Sweetgum</td>
</tr>
<tr>
<td>118th Ave SE – SE 8th St to SE 40th St</td>
<td>Pyrus calleryana ‘Chanticleer’</td>
<td>Chanticleer Pear</td>
</tr>
<tr>
<td>119th Ave SE – Coal Creek Pkwy to SE 60th St</td>
<td>Liquidambar styraciflua</td>
<td>American Sweetgum</td>
</tr>
<tr>
<td>120th Ave NE – NE 1st St to Northup Way</td>
<td>Quercus rubra</td>
<td>Red Oak</td>
</tr>
<tr>
<td>124th Ave SE – SE 38th St to SE 41st PI</td>
<td>Fraxinus pennsylvanica</td>
<td>Green Ash</td>
</tr>
<tr>
<td>124th Ave SE – SE 41st PI to Coal Creek Pkwy</td>
<td>Styrax japonica</td>
<td>Japanese Snowdrop</td>
</tr>
<tr>
<td>124th Ave NE – Main St to NE 8th St</td>
<td>Malus ‘Centurion’</td>
<td>Centurion Crabapple</td>
</tr>
<tr>
<td>124th Ave NE – NE 8th St to Northup Way</td>
<td>Crataegus mollis</td>
<td>Downy Hawthorn</td>
</tr>
<tr>
<td>128th Ave NE – I-90 to Coal Creek Pkwy</td>
<td>Acer rubrum ‘Scarlet Sentinel’</td>
<td>Scarlet Sentinel Red Maple</td>
</tr>
<tr>
<td>130th Ave NE – Bel-Red Rd to Northup Way</td>
<td>Acer rubrum</td>
<td>Red Maple</td>
</tr>
<tr>
<td>132nd Ave NE – Bel-Red Rd to Northup Way</td>
<td>Quercus robur</td>
<td>Red Oak</td>
</tr>
<tr>
<td>139th Ave SE – SE Eastgate Way to Kamber Rd</td>
<td>Tilia cordata ‘Greenspire’</td>
<td>Greenspire Littleleaf Linden</td>
</tr>
<tr>
<td>140th Ave NE/SE – SE 8th St to Bel-Red Rd</td>
<td>Acer platinoides ‘Emerald Green’ Acer ginnala Lirodendron tulipifera</td>
<td>Emerald Green Norway Maple Amur Maple Tuliptree</td>
</tr>
<tr>
<td>140th Ave NE – Bel-Red Rd to NE 24th St</td>
<td>Gingko biloba</td>
<td>Gingko</td>
</tr>
<tr>
<td>145th PI SE – SE 8th St to SE 24th St</td>
<td>Acer platinoides ‘Emerald Green’</td>
<td>Emerald Green Norway Maple</td>
</tr>
<tr>
<td>148th Ave NE/SE – NE 40th St to SE Eastgate Way</td>
<td>Platanus x acerfolia Pseudotsuga menziesi</td>
<td>London Planetree Douglas Fir</td>
</tr>
<tr>
<td>156th Ave NE – NE 8th St to Northup Way</td>
<td>Quercus coccinea</td>
<td>Scarlet Oak</td>
</tr>
<tr>
<td>156th Ave NE – Northup Way to Bel-Red Rd</td>
<td>Acer rubrum x freemanii ‘Armstrong’</td>
<td>Armstrong Maple</td>
</tr>
<tr>
<td>156th Ave NE – Bel-Red Rd to NE 28th St</td>
<td>Fraxinus pennsylvanica</td>
<td>Green Ash</td>
</tr>
<tr>
<td>Street Name</td>
<td>Section 1</td>
<td>Section 2</td>
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<tr>
<td>-------------</td>
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<td>-----------</td>
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<td>156th Ave SE – SE 24th St to SE Eastgate Way</td>
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</tr>
<tr>
<td>156th Ave SE – SE 24th St to SE 16th St</td>
<td>Populus tremuloides</td>
<td>Quaking Aspen</td>
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<td>164th Ave NE – NE 8th St to Northup Way</td>
<td>Acer platanoides ‘Superform’</td>
<td>Superform Norway Maple</td>
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<td>164th Ave SE – SE 46th Way to Lakemont Blvd SE</td>
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<td>168th Ave SE – SE 14th St to SE 24th St</td>
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<td>Bel-Red Rd – I-405 Ave NE to City Limits</td>
<td>Platanus × acerifolia</td>
<td>London Planetree</td>
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<td>Acer platanoides ‘Cleveland’</td>
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<td>Acer platanoides ‘Crimson King’</td>
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<td>Bellevue Way SE – 112th Ave SE to I-90</td>
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<td>Green Ash</td>
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<td>Coal Creek Pkwy – I-405 to 128th Ave SE</td>
<td>Cercidiphyllum japonicum</td>
<td>Katsura</td>
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<td>Cougar Mnt Way – Lakemont Blvd to SE 60th St</td>
<td>Acer platanoides ‘Deborah’</td>
<td>Deborah Maple</td>
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<td>Malus ‘Centurion’</td>
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<td>Forest Dr SE – Coal Creek Pkwy to Lakemont Blvd SE</td>
<td>Betula jacquemontii</td>
<td>Jacquemontii Birch</td>
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<td>Thuja plicata</td>
<td>Western Red Cedar</td>
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<td>Highland Dr – SE Newport Way to Forest Dr SE</td>
<td>Acer ginnala</td>
<td>Amur Maple</td>
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<td>Kamber Rd – Richards Rd to 145th Pl SE</td>
<td>Crataegus phaenopyrum</td>
<td>Washington Hawthorn</td>
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<td>Lakemont Blvd SE – 164th Ave SE to Forest Dr</td>
<td>Fraxinus pennsylvanica ‘Marshall Seedless’</td>
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<td>Lakemont Blvd SE – I-90 to 164th Ave SE</td>
<td>Acer platanoides</td>
<td>Norway Maple</td>
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<td>Lake Hills Blvd – 145th Pl SE to 156th Ave SE</td>
<td>Cornus ‘Eddies White Wonder’</td>
<td>Eddies White Wonder Dogwood</td>
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<td>Lake Hills Connector – 116th Ave SE to 140th Ave SE</td>
<td>Sequoiadendron giganteum</td>
<td>Giant Sequoia</td>
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<td>Main St – I-405 to 116th Ave</td>
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<td>Main St – 140th Ave SE to 156th Ave SE</td>
<td>Fraxinus pennsylvanica ‘Marshall Seedless’</td>
<td>Marshall Seedless Ash</td>
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<td>Cornus kousa × nuttalli ‘Starlight’</td>
<td>Starlight Dogwood</td>
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<td>NE 8th St – 116th Ave NE to 164th Ave NE</td>
<td>Pyrus calleryana ‘Aristocrat’</td>
<td>Aristocrat Pear</td>
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<td>NE 24th St – 98th Ave NE to Bellevue Way NE</td>
<td>Cercis canadensis</td>
<td>Eastern Redbud</td>
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<td>NE 24th St – 140th Ave NE to 148th Ave NE</td>
<td>Pyrus calleryana ‘Chanticleer’</td>
<td>Chanticleer Pear</td>
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<tr>
<td>NE 24th St – 156th Ave NE to 170th</td>
<td>Acer platanoides</td>
<td>Norway Maple</td>
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## Streetscape Management

<table>
<thead>
<tr>
<th>Ave NE</th>
<th>Prunus serrulata ‘Kwanzan’</th>
<th>Kwanzan Cherry</th>
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<tr>
<td>NE 29&lt;sup&gt;th&lt;/sup&gt; St – 148&lt;sup&gt;th&lt;/sup&gt; Ave NE to NE 24&lt;sup&gt;th&lt;/sup&gt; St</td>
<td>Pyrus calleryana ‘Chanticleer’ Acer platanoides Fraxinus pennsylvanica ‘Patmore’</td>
<td>Chanticleer Pear Norway Maple Patmore Ash</td>
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<td>Northup Way – 124&lt;sup&gt;th&lt;/sup&gt; Ave NE to 130&lt;sup&gt;th&lt;/sup&gt; Ave NE</td>
<td>Acer platanoides ‘Emerald Green’</td>
<td>Emerald Green Norway Maple</td>
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<td>Northup Way – 130&lt;sup&gt;th&lt;/sup&gt; Ave NE to 156&lt;sup&gt;th&lt;/sup&gt; Ave NE</td>
<td>Acer rubrum ‘Red Sunset’</td>
<td>Red Sunset Maple</td>
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<td>Richards Rd – I-90 to Lake Hills Connector</td>
<td>Acer rubrum ‘Red Sunset’</td>
<td>Red Sunset Maple</td>
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<tr>
<td>SE 16&lt;sup&gt;th&lt;/sup&gt; St – 156&lt;sup&gt;th&lt;/sup&gt; Ave SE to 160&lt;sup&gt;th&lt;/sup&gt; Ave SE</td>
<td>Pyrus calleryana ‘Chanticleer’</td>
<td>Chanticleer Pear</td>
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<tr>
<td>SE 16&lt;sup&gt;th&lt;/sup&gt; St – 145&lt;sup&gt;th&lt;/sup&gt; Pl SE to 148&lt;sup&gt;th&lt;/sup&gt; Ave SE</td>
<td>Acer ginnala ‘Flame’</td>
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<td>Chanticleer Pear</td>
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<td>SE 60&lt;sup&gt;th&lt;/sup&gt; St – Lake Wa Blvd to 129&lt;sup&gt;th&lt;/sup&gt; Ave SE</td>
<td>Tilia cordata Malus floribunda</td>
<td>Littleleaf Linden Japanese Crabapple</td>
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<tr>
<td>SE 60&lt;sup&gt;th&lt;/sup&gt; St – 129&lt;sup&gt;th&lt;/sup&gt; Ave SE to Coal Creek Pkwy</td>
<td>Amelanchier x grandiflora</td>
<td>Serviceberry</td>
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<tr>
<td>SE 63&lt;sup&gt;rd&lt;/sup&gt; St – Lakemont Blvd SE to Forest Dr SE</td>
<td>Pyrus calleryana ‘Chanticleer’</td>
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<td>SE Eastgate Way – Richards Rd to SE 35&lt;sup&gt;th&lt;/sup&gt; Pl</td>
<td>Quercus coccinea</td>
<td>Scarlet Oak</td>
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<tr>
<td>SE Phantom Way – 160&lt;sup&gt;th&lt;/sup&gt; Ave SE to 168&lt;sup&gt;th&lt;/sup&gt; Ave SE</td>
<td>Pyrus calleryana ‘Chanticleer’</td>
<td>Chanticleer Pear</td>
</tr>
<tr>
<td>Village Park Dr SE – Lakemont Blvd SE to City Limits</td>
<td>Acer platanoides</td>
<td>Norway Maple</td>
</tr>
<tr>
<td>West Lake Sammamish Pkwy – Southern City Limits to Northern City Limits</td>
<td>To be determined</td>
<td>To be determined</td>
</tr>
</tbody>
</table>

**Note:** Primary street tree species do not indicate appropriate accent trees. Acceptance of secondary accent trees are at the digression of the Landscape Architect and the City of Bellevue Planning Department.
8.4 **Best Management Practices**

The management and maintenance of trees by the City of Bellevue Parks & Community Services Department consists of a number of practices. The practices are covered in the following section and include: planting, pruning, removal, protection, inventory, routine inspections, irrigation, fertilization and pest management. Activities associated with the protection and management of trees and vegetation before and during construction are covered in this chapter and also in the Construction Site Management chapter.

Vegetation in the Bellevue’s ROW can be classified into one of the following three management and maintenance categories:

1) **Streetscapes:** Streetscapes include improvements made within the City of Bellevue Right-of-Way through either Capital Improvement Program (CIP) projects or private development. This vegetation requires the greatest level of maintenance and has the highest level of tree/people interaction. Because growing conditions at these sites are often impacted by urban stresses, they are most likely to suffer from mechanical damage, biotic and abiotic disorders and vandalism. The management of the streetscapes directly affects the adjacent property owners and the character of the community. If the Streetscape was installed as part of a CIP or through private development along an arterial or collector, the Parks & Community Services Department accepts the management responsibility with funding provided to the Parks operating budget from the CIP.

2) **Native Roadside Vegetation:** Streets that are primarily vegetated by native plants lend a unique character to Bellevue. The vegetation in these areas is generally naturally occurring and does not follow a predetermined planting plan. Much of the vegetation in these areas consist of native species, but there is a high likelihood for non-native plant species as well. Encroaching vegetation is normally cut by Utilities Street Maintenance using either an articulated mower or hand tools.

3) **Residential Streets:** Along residential streets, homeowners have established landscapes as extensions of their own yards. Occasionally, residential subdivisions contain planting strips and street trees that were installed by the developer. Some homeowner’s associations maintain highly developed...
landscapes on arterials as part of entrances to their residential developments. The landscapes contribute significantly to the City’s urban forest and particularly to the street tree population. Landscaping in the right-of-way along residential streets reflects the individual preferences for plant selection and maintenance practices of the adjacent home or property owner.

**Plant Quality, Approval and Care**

Plant quality, approval and care should be evaluated before any plant materials are allowed to be installed. Poor plant and/or tree quality and/or lack of care during storage, shipping or after installation can all lead to decline or death of the plant materials after installation and can increase overall maintenance costs for several seasons after installation.

Quality of each plant or tree should be visually checked either at the nursery before shipping or upon delivery of the materials before acceptance. Plants and trees should exhibit good form, vigor and shape for the species with the absence of any major deformities visible. Plants and trees should arrive onsite in a vibrant and healthy state ready for installation. Roots, whether in balls, grow bags or containers should be firm but not hard, healthy in appearance, evenly spaced around the plant or tree and relatively free of girdling or an overabundance of root material for the size of the container (i.e. root bound containers). Limbs and branches should be evenly spaced throughout the plant or tree and not clustered in one location that may lead to problems later in life and should be inspected for damages as a result of shipping. Pay particular attention to trees with central leaders to ensure that the leader has not been broken during shipping.

All plant materials to be accepted by the City of Bellevue shall meet or exceed the American Standards for Nursery Stock (ANSI Z60.1) as adopted in 2004. These standards can be viewed online under the publications section of the American Nursery and Landscape Association website at [www.anla.org](http://www.anla.org).

**Tree and Plant Protection**

Trees vary in their ability to adapt to altered growing conditions. Mature trees have established stable biological systems in the pre-existing physical environment. Disruption of this environment by construction activities interrupts the tree’s physiological processes
causing depletion of energy reserves and a decline in vigor, often resulting in the tree’s death. Typically, this reaction may develop from one to seven years after disruption. The tree protection BMPs are intended to eliminate undesirable consequences that result from uninformed or careless acts, and preserve both trees and property values. The following BMPs, if followed, will reduce the negative impacts of park construction on trees:

- Tree protection fencing will be constructed at the outer limit of the TPZ. If the fencing must enter inside the TPZ, root buffer will be constructed. One warning sign will be displayed for every 15 feet of lineal fencing, facing toward the work area. No activity is allowed in the CRZ of the trees being protected.
- On occasion, trees will need to have branches pruned in order to facilitate access to a construction site or the construction of a new facility. Pruning will follow International Society of Arboriculture Pruning Guidelines.
- Trenching and excavation activities are prohibited within the TPZ.
- When utility installation must occur within the TPZ, tunneling shall be the preferred method to install such utilities. The tunnel shall be dug either by hand, air spade, hydraulic vacuum or mechanically boring the tunnel under the roots with a horizontal directional drill and hydraulic or pneumatic air excavation technology.
- Construction shall be monitored regularly to ensure compliance with specifications. Work shall be stopped if construction site management BMP’s are not being followed by the contractor.
- Cement washout pits and chemical holding areas shall be located away from vegetation protection areas, streams and wetlands.
- Contractor parking and material storage shall be limited to already impacted areas away from tree roots.
- Site offices and equipment shall not encroach into vegetation protection areas.
- Whenever possible, control and minimize grade changes within vegetation protection areas. Generally, no changes in grade should occur within the TPZ of any tree to remain on site. This area may be increased at the discretion of the project manager. If the grade must be raised around a desired tree, a dry well shall be constructed around the tree at the drip line or some
- Refueling and maintenance areas shall be kept away from trees, native soils, water bodies and drainage systems. Fuel spills will not be tolerated on construction sites. If pollutants leak or are discharged into a water-body, the City of Bellevue Clearing and Grading Inspector, as well as the Department of Ecology shall be contacted.
- To the extent possible, construction equipment shall be kept away from all onsite vegetation, especially those within designated protection areas.
- TESC implementation, maintenance, and removal shall follow City of Bellevue regulations.

Tree Planting Standards

- All plant material shall be nursery grown under climate conditions similar to or hardier than at the site and meet or exceed The American Standards for Nursery Stock (ANSI Z60.1-1996).
- Ideal planting hole should be 2 to 5 times the diameter of the root spread or root ball.
- Minimum planting hole shall be 12 inches wider than root spread or root ball.
- The hole shall be no deeper than the ball and the ball shall sit firmly on the undisturbed subsoil.
- Native soil shall be used to backfill the planting hole except in situations where the existing soil is contaminated or filled with rubble or pure clay.
- Balled-and-burlapped (B&B) trees shall be placed in the hole and plumbed vertically. All rope shall be removed from around the trunk of the tree and the top 1/2 of the burlap shall be folded back down into the hole. Whenever possible, remove the top 1/2 of burlap by cutting it away with a sharp knife. Trees in wire baskets shall have the top 1/2 of the basket removed, using bolt cutters, to expose the top 12 to 18 inches of the ball.
- B&B packaging material shall not be removed until the tree is placed in the hole and securely plumbed into its final position. No false balls shall be used.
- Soil should be backfilled in lifts of 4 to 6 inches at a time with compaction of each layer. Do not compact saturated soil.
Water thoroughly after backfilling to settle the soil, eliminate air pockets and re-wet the root system.

- Trees planted in sandy or loamy soils should have a 3-inch-high berm erected just past the perimeter of the planting hole to funnel water to the root ball and wet the hole or sidewall interface. Berms should not be constructed in clay soils or on heavily compacted sites.
- All trees shall be mulched with 3 to 4 inches of shredded mulch or composted brush chips immediately after backfilling. Maintain 3 to 4 inches of mulch annually.
- Mulch shall extend past the diameter of the tree planting pit at least 6 inches.
- Mulch shall be kept away from the tree trunk. Mulch shall taper from the 3-inch depth back to grade right at the trunk to avoid decay of bark tissues.
- Newly planted trees shall be watered weekly through the first three growing seasons.
- Trees shall receive approximately 1 inch of water per week including rainfall.
- Weeds should be suppressed within the mulch ring to eliminate competition and for aesthetics in formal parks and along streets.
- Weeds and/or turf shall not be allowed to grow up to the tree trunk at any time. This increases the likelihood of mechanical trunk injury.
- Ideal months for planting are October through April, as long as the ground is unfrozen.
- Stake only in situations where normal planting procedures do not provide a stable plant. Otherwise, staking is generally not required.
- Stakes and ties shall be removed at the end of the first year.
- Root flare shall be at or slightly above grade to allow for slight settling.
- Tree trunks shall not be wrapped.
- Tree trunk wrapping materials, tags and all ties shall be removed at time of planting.

**Container/Bare Root Planting**

- All plant material shall be nursery grown under climate conditions similar to or hardier than at the site and meet or
exceed The American Standards for Nursery Stock (ANSI Z60.1-1996). Container plants shall have the container removed prior to placement in the planting pit.
- Tease pot-bound roots with hands or tools prior to final placement in planting pit.
- Bare root plants shall be protected from root drying prior to and immediately after planting.
- Cleanly prune exceptionally long roots to create a uniform root mass.
- Plant bareroot stock at the same grade as grown in the nursery.

Tree Removal

Due to the economic, environmental and social benefits of trees, their removal must be well thought out and documented. In general, tree removal in the City of Bellevue is regulated by BCC 23.76. At times, trees may be removed for new park construction, access or other issues not related to tree viability.

1. Hazard Trees
   - Tree hazard assessments shall be performed by qualified personnel to the standards established by the International Society of Arboriculture.
   - Hazard trees that cannot be made safe or functional by appropriate mitigation shall be candidates for removal.
   - Hazard rating shall be the first determining factor in removal decisions.

2. Tree Removal Permitting
   A Clearing and Grading permit is required to remove one or more trees if the total canopy area covers 1000 square feet or greater on the ground. In sensitive areas, such as steep slopes, riparian corridors or along shorelines, all tree removals must be permitted through the Developmental Services Department. In addition, all tree removals occurring in the public Right-of-Way must be accompanied by a Right-of-Way Use Permit, regardless of the amount of canopy area.

Transplanting

If trees are smaller than 10 to 12 inches in diameter, it is possible to transplant them with an appropriately-sized tree-spade. The cost of
transplanting should be weighed against the cost of replacing the tree with a new smaller caliper tree. Establishment of large trees is often less successful than planting a new one.

The value of the tree to be transplanted should also be taken into account when deciding on removal or replacement rather than transplanting. Different methods of appraising value are reviewed in the 9th edition of *Guide for Tree Appraisal* produced by the Council of Tree and Landscape Appraisers.

**Watering**

- In general, established trees do not require supplemental watering except during periods of extreme drought.
- Valuable, specimen trees may be watered during periods of extreme drought.
- Turf irrigation around established trees needs to be modified to accommodate the water requirements of the trees.
- Water spray on trunks can lead to decay in some species. See Chapter 4, Irrigation and Water Management, for additional information on watering practices.

**Pruning**

Pruning is sometimes necessary for young street trees. Branches that grow into a right-of-way or too close to power-lines can be very dangerous. Usually, branches that grow below 8 feet above a sidewalk or below 14 feet above a street shall be cut back. Dead branches should be pruned to restore vigor to a tree. All pruning shall be performed to current ANSI Z133 standards.

Learning the proper method is important as you can seriously wound or even kill a tree. The best time to prune living branches is late in the dormant season or very early in spring before leaves form. Dead and dying branches can be pruned anytime. Use clean sharp tools and make clean cuts.

**Do Not:**

- Leave living or dead stubs
- Injure or remove the branch collar
- Paint cuts

Topping shall be prohibited.
Physical Damage to Trees

Physical damage to trees can be a major factor in overall tree loss. Damage can occur in many ways. From repeatedly glancing from mowing equipment, to vehicle collisions, vandalism by people, and even improper care during construction projects, these incidences can have a mortal effect and cost hundreds of dollars. The following best management practices can help reduce physical damage to trees:

- Removing turf from around the tree base to create tree rings 3 to 4 feet in diameter can substantially reduce damage caused by mowers and trimmers. With tree rings, a mower or trimmer never has to come close enough to the tree to cause damage. The tree ring shall be kept free of grass and weeds.
- Following Site Design and Construction Management BMPs substantially reduces or eliminates damage from construction activities.
- Damage from vehicles and human vandalism cannot be controlled. Parks shall collect compensation from these incidents. (see Parks code)

Water Quality Monitoring

Water quality is another important aspect for maintaining a healthy urban environment. In Bellevue, many departments and outside agencies work together and communicate with Parks, to ensure that monitoring and regulation of water quality and surrounding habitat persists. These include Bellevue’s Developmental Services Department, Utilities Department and the Washington State Department of Fish and Wildlife.

8.5 Integrated Pest Management

Pest Tolerance Thresholds for Streetscapes

- In general, insect and disease pests on streetscapes are tolerated.
- Insect or disease pests in selected, high-value specimen plants may be subject to control measures.
Pest Management Control Strategies for Trees

Insects
The City of Bellevue does not actively control insect pests, particularly for tall trees that might require use of large aerial spray equipment. Such equipment carries with it a high probability of insecticidal drift. The following measures are used when insect pest control is deemed necessary:

- Trees that are highly susceptible to specific insect pests (such as blue spruce and spruce aphids) may be removed from the landscape and replaced with resistant species.
- When possible, the portion of the tree affected by the insect (such as tent caterpillars) can be physically removed, eliminating the pest.
- An insecticide may be applied to control a specific insect pest in very selective situations. These scenarios include pests on specimen quality trees at special gardens or in high-visibility locations where the presence of the pest threatens the life of the tree. In these situations, general foliar applications will not be made unless the potential for product drift can be controlled. New injection technology may allow for systemic control of certain insect pests with minimal or no impact to human or environmental health.

Disease
Increased concern for the Pacific Madrone and concern about Dutch Elm disease has required Bellevue Parks to become more proactive in managing disease pests in significant trees. As with insecticides, it is unlikely that the department will subscribe to general foliar applications of fungicides or similar pesticide products to control disease pests in trees. The following are IPM control measures that can be performed:

- Trees susceptible to particular disease pathogens may be removed from the landscape and replaced with resistant varieties.
- When possible, parts of trees affected by disease should be pruned out and properly disposed to stop the spread of disease within the tree and to adjacent trees.
- An appropriate fungicide may be applied to control a specific disease pathogen in very selective situations. These cases include specimen quality trees in special gardens or in high-
visibility park locations where the presence of the disease threatens the life of the tree. In these situations, general foliar applications will not be made unless the potential for product drift can be controlled.

- New injection technology may allow systemic control of certain diseases in tree pests with minimal or no impact to human or environmental health.

## 8.6 Training

- Provide training to all construction personnel to make sure they understand all construction site BMPs.
- The site manager and other designated site managers shall receive the most recent training and education dealing with construction site management. This training includes the most recent advances for protecting trees on construction sites.
- Tree workers will be ISA certified.
- All contracted or volunteer planting crews shall be trained in proper planting techniques by the site manager.
Street Management

Bellevue Parks & Community Services