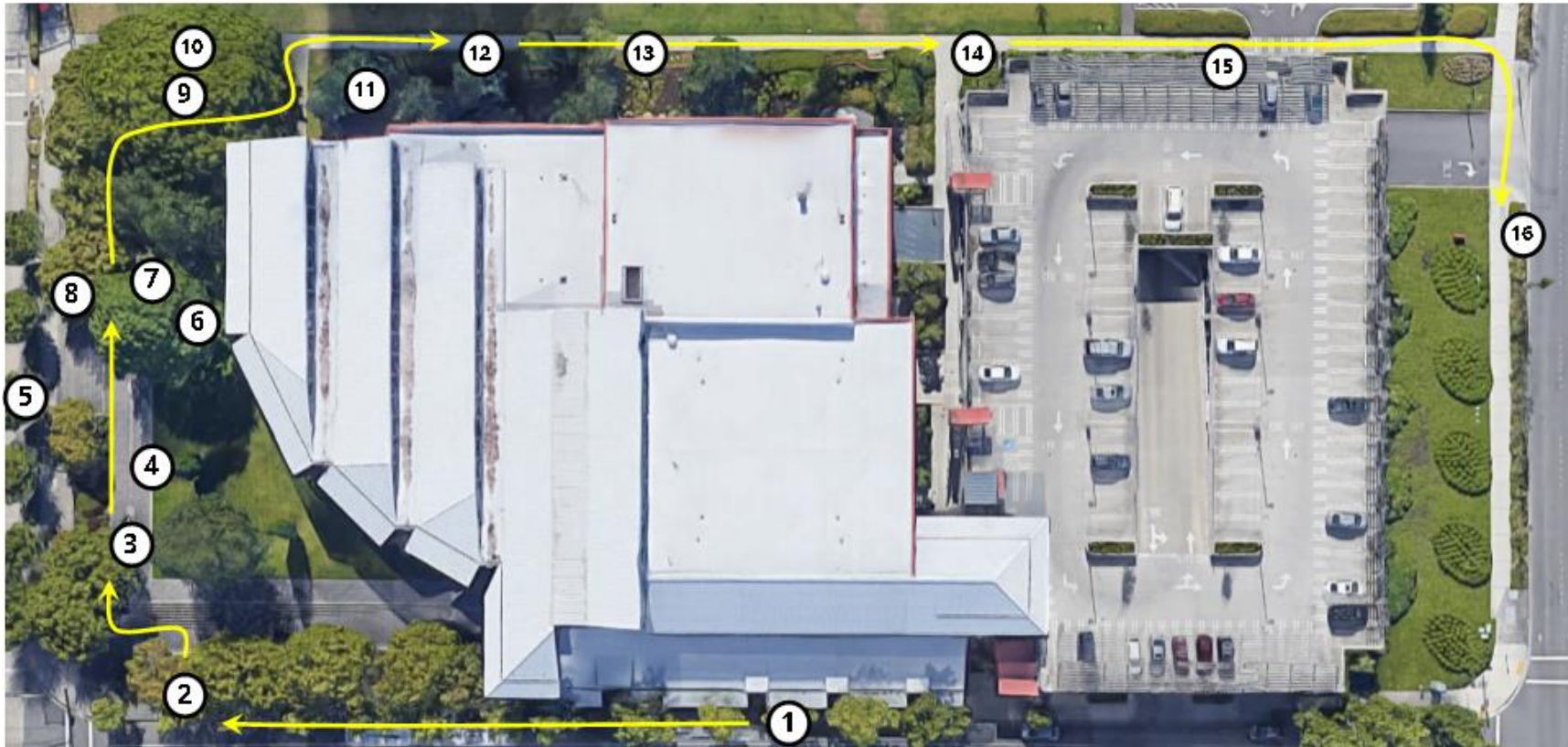


## Self-Guided Neighborhood Tree Tour

*Created by Karen Voorhees*



**Neighborhood:** Bellevue Downtown Library (Ashwood Plaza, Ashwood Playfield)

**Starting point:** Bellevue Library Entrance (North of Bellevue Library – intersection of 110<sup>th</sup> and 12<sup>th</sup>)

**Time:** 15 minutes



## Bellevue Neighborhood Tree Ambassador Program

**Summary/Theme:** At Bellevue Library, Ashwood Plaza is a model of a nice urban village that highlights the city's stewardship of the environment and a commitment to a range of park and open space facilities and growing sustainably with beautiful natural elements.

We want you to explore the nature that is in the heart of downtown and perhaps you can start a nature journal to be with nature. Keeping a journal of your observations, questions, and reflections will enrich your experiences and develop observation, curiosity, gratitude, reverence, memory, and the skills of a naturalist. Train your mind and the world will offer its secrets of wonder and beauty.

This tour focuses on the diversity of trees that reflect the roots, history, and background of the city which parallels with our city's growth and change. Along the way it provides the inter-relationship of trees and their life cycle with humans, habitat, and the environment. We hope that you will begin to observe the similarities and differences while enjoying the environment the trees provide and you too will become ambassadors for trees in Bellevue and share your expertise.



## Bellevue Neighborhood Tree Ambassador Program

This tree tour was developed by Bellevue's Neighborhood Tree Ambassador volunteers. The goal of the Neighborhood Tree Ambassador program is to help build community support for trees in Bellevue. Trees are an important part of our community because they provide significant health and environmental benefits. Bellevue has a goal to achieve a 40% tree canopy across the entire city. As of 2017, we are at 37%. Around two-thirds of Bellevue's existing tree canopy is in residential areas. By preserving and planting trees in residential areas, Bellevue's community members can make a big difference in helping to reach the 40% tree canopy goal while improving the environment.

### Benefits of Trees:

- Reduce stormwater runoff, flooding, & erosion from rainfall and downpours
- Reduce air pollution
- Mitigate temperature swings of air temperature saving money -heating and cooling costs (for example tree shaded surfaces can be 20–45°F (11–25°C) cooler than surfaces in direct sun and conversely acts as insulation in the winter
- Reduces atmospheric carbon dioxide (CO<sub>2</sub>)
- Provide wildlife habitat, food, and shelter
- Reduce stress & improve health and wellbeing
- Improve learning and concentration
- Lessens road noise from nearby freeways in neighborhoods

### Benefits of Bellevue Street trees:

- Capture 685,593 tons of atmospheric CO<sub>2</sub> per year
- Remove 139.9 lbs. of particulate matter, 228.8lbs. of ozone, 11.1 lbs. of sulfur dioxide and, 38.5 lbs. of nitrogen oxides annually.

We encourage you to plant more diverse trees on your properties. A diverse tree population increases resilience from pests such as emerald ash borers. Let us make Bellevue a beautiful tree city. For more information about trees in Bellevue or the Neighborhood Tree Ambassador program, please visit [BellevueWA.gov/trees](http://BellevueWA.gov/trees). If you have questions or would like to share feedback about this tour, please email [trees@bellevuewa.gov](mailto:trees@bellevuewa.gov).

Please see tree benefit calculator at <https://www.arboday.org/calculator/> to compute the value of tree benefits on your property. One red maple that is in Ashwood Plaza gives overall benefits of \$190/year.

### Some Fun Facts about trees:

- Leaves appear green because chlorophyll absorbs all other light colors, especially red and blue light energy, causing the green energy to bounce off the leaf's surface.
- Dendrochronology is the dating and study of annual rings in trees.
- Methuselah, an estimated 4,765-year-old ancient bristlecone pine, is one of the oldest living trees in the world. (It lives in a secret location in the White Mountain range of eastern California)
- General Sherman, a giant sequoia, is the largest tree (by volume) in the world, standing 275 feet (83.8m) tall with 52,000 cubic feet of wood (1,486.6m).

### Background and brief history of where you are starting - Ashwood Plaza



Property of MSCUA, University of Washington Libraries. Photo Coll 251

Figure 1: Current Ashwood Plaza and library in 1957, then Ashwood Elementary



Figure 2: Library's humble start, 1957

Ashwood Park and the public library are now situated on a portion of the block once occupied by the Ashwood Elementary school (1956-1978). The first Bellevue Library, located in a small room at the back of a cafe, opened in 1925 under the



## Bellevue Neighborhood Tree Ambassador Program

supervision of the Bellevue Women's Club. The library moved around to various locations, and the current library was opened in 1993. From its humble start, now we see a spectacular building with so many whimsical spaces.

In addition to the art, many people who visit the library also enjoy the adjoining Ashwood Plaza, a City of Bellevue park that borders the south edge of the building. Now let us explore what are the natural elements and beautiful seating area and the artwork in the plaza.



## Bellevue Library and Ashwood Plaza Tree Tour




### Identifying Trees/Key points for identification:

1. Tree Form: What is the shape of the tree and branches from a distance?
2. Describe the trunk and bark






## Bellevue Neighborhood Tree Ambassador Program

3. Tree Foliage: How leaves are arranged? leaf type, leaf margin (edge), leaf shape, leaf venation (veins), and leaf blade length, and color from spring to fall
4. Flower and fruit. We used these features to isolate species of Maple trees and try to describe them below.


Stop #	Landmark	Discussion	Photo
1.	Bellevue Library facing 10 <sup>th</sup> street between 108 <sup>th</sup> and 110 <sup>th</sup> Ave  Ashwood Plaza	<p>Ashwood Plaza has a variety of maple and other trees that are explored individually below. We would like you to notice the variety of maples that are here. Some are three lobed, some 5 lobed, some with red color twig. After doing this tour, we started noticing the maples that are on the streets, in parks and surprised to see how many species of maple trees we have. We hope you do too.</p> <ul style="list-style-type: none"> <li>• The maple is a common symbol of strength and endurance and has been chosen as the national tree of Canada.</li> <li>• A maple leaf is on the coat of arms of Canada and is on the Canadian flag.</li> </ul>	

## Bellevue Neighborhood Tree Ambassador Program

2.	<p>Linden (Redmond American Linden, Basswood)</p> <p><i>(Tilia americana 'Redmond')</i></p>	<p>Facing 110<sup>th</sup> you see a series of linden trees. This tree is pyramidal when young but develops into an upright, oval canopy atop a tall, straight trunk. Beautiful heart-shaped leaves are dark green, fading to pale green or yellow before dropping in autumn.</p> <p>In June, the trees produces abundant clusters of very fragrant, light yellow blooms which are extremely attractive to bees, who make delicious honey from their harvests. The small, grey nut which is later produced will persist on the tree until midwinter.</p>	 	
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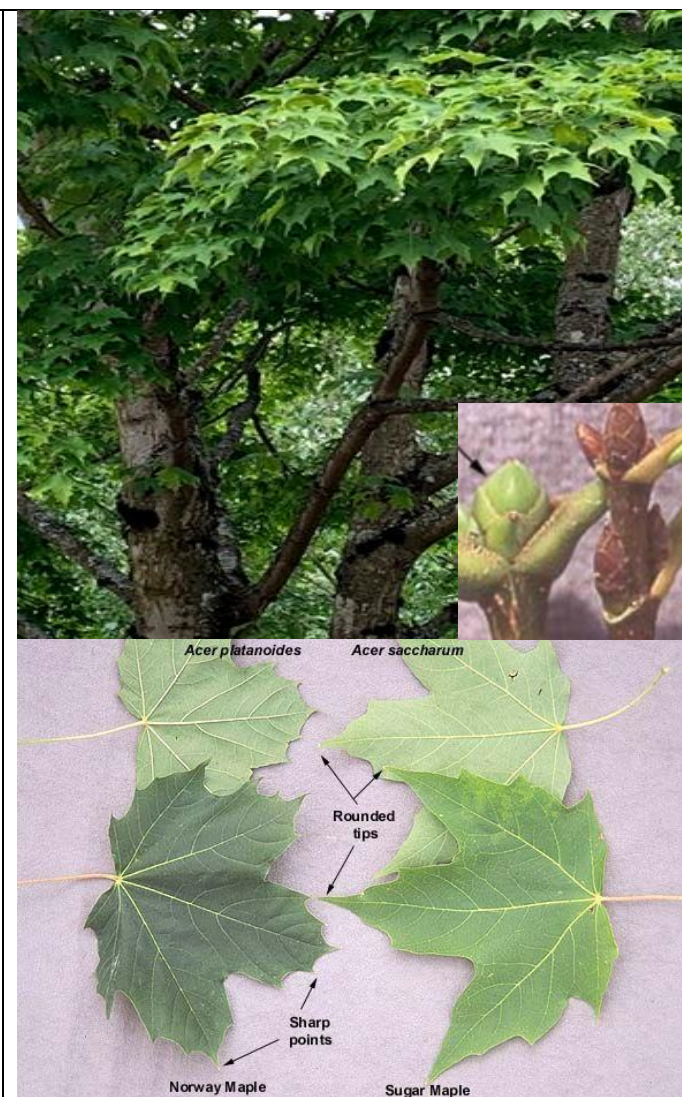




## Bellevue Neighborhood Tree Ambassador Program

3.	Double Inquiry	<p>Here we are seeing other aspect of the mother nature: Art work. Looking at this, art what inspires you?</p> <p>Here is a place to sit in the paradise and ponder the nature of the mind and its relationship with the mother nature.</p> <p>According to the artist, his inspiration was a metaphorical gate that suggests you are entering a place to expand your mind, a place of inquiry and seeking, A work that suggested communication - dialogue – interaction. Images that suggest the whole world - whole community - whole individual, a timeless work that changes with light and seasons.</p>	
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# Bellevue Neighborhood Tree Ambassador Program


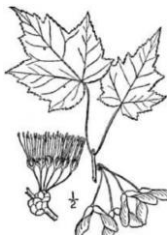

4.	Norway Maple  ( <i>Acer platanoides</i> )	<p>The Norway maple is a deciduous tree with dense foliage, a broad crown, and stout stems. Its leaves are 5-lobed and milky sap comes out when the petiole is removed. Fall leaf color is yellow. This maple has the most attractive flowers of all maples. Norway maples look very similar to sugar maples. You can use the following clues to differentiate between them.</p> <table><tr><td>Norway Maple</td><td>Sugar Maple</td></tr><tr><td>Leaves wider than longer, buds are round with 2-3 pairs of scales</td><td>Longer than wide, buds are sharply pointed with many scales</td></tr><tr><td>When broken milky white sap</td><td>Watery sap</td></tr><tr><td>Seeds: Widespread wings</td><td>horseshoe shape wings droop 45 to 90 deg</td></tr></table>	Norway Maple	Sugar Maple	Leaves wider than longer, buds are round with 2-3 pairs of scales	Longer than wide, buds are sharply pointed with many scales	When broken milky white sap	Watery sap	Seeds: Widespread wings	horseshoe shape wings droop 45 to 90 deg
Norway Maple	Sugar Maple									
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			 <p>Figure 3: Norway maple (left) and sugar maple (right)</p>
5.	<p>Library 10<sup>th</sup> St. (About 13 trees between 108<sup>th</sup> and 110<sup>th</sup>)</p> <p>Japanese Zelkova or Sawleaf Zelkova</p> <p>(<i>Zelkova serrata</i>)</p>	<p>Zelkova is in the same family as the American Elm, but this special type of tree is resistant to Dutch elm disease. In the 1930s, Dutch elm disease was brought into the US in a shipment of logs to Ohio that contained elm-bark beetles, resulting in a nationwide outbreak of the disease that continues to this day. Elms have struggled to survive since then.</p> <p>Japanese Zelkova is a beautiful vase-shaped, deciduous tree with a dense canopy and attractive brown, exfoliating bark. It is valued for its branching structure (which resembles the American elm) and its tolerance to urban life. Leaves are oval shape, sharply serrate with teeth the curve outward, parallel veins, dark green, and somewhat rough above. Fall color is yellow to rusty red.</p>	






# Bellevue Neighborhood Tree Ambassador Program

<p>6.</p>	<p>Red Maple</p> <p>(<i>Acer rubrum</i>)</p>  <p>Behind this arch-shaped sculpture</p>  <p>Nature journal idea</p>	<p>There are 2 trees near the Gandhi statue and one near this arch-shaped sculpture. Can you look closely and find the difference among these trees? (After looking at these trees, look at the trees in front of this sculpture towards 10<sup>th</sup> Street, and the trees that are adjacent to Ashwood Playfield Trail.)</p> <p>The red maple is a deciduous tree that could reach the height of 40'. The bark color changes with the age of the tree; becomes more furrowed and scaly.</p> <p>The leaves are red when unfolding, serrated, with reddish veins and red petioles. Flowers are red (source of red maple name), one of the first maples to bloom in spring, male (pollen) flowers and female (seed) flowers on different branches of the same tree.</p> <p>The pollen is an important source for bees and seeds, buds, and flowers are eaten by various wildlife.</p> <p>The sap of red maple is sometimes used for producing maple syrup (has only about half the sugar content as a sugar maple). The wood is used for furniture, flooring, musical instruments, and many other purposes. Tea from inner bark has been used for medicinal purposes and to make dyes and ink.</p>	
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<p>7.</p>	<p>Sugar Maple</p> <p>(<i>Acer saccharum</i>)</p>  <p>Nature Journaling</p>	<p>Do you see a difference in leaf or shape from this leaf and the red maple? The sugar maple is a deciduous tree with upright oval shape and, twigs of small diameter. Their leaf margins are coarsely toothed and fall color varies from yellow to red tones. Flowers are small, without petals, and greenish yellow.</p> <p>Sugar maples were the source of sweetener to Native Americans and early settlers. They also used sugar maple sap candy as a beverage, fermented into beer, and soured into vinegar and used to cook meat. Sugar maples are an important timber tree valued for its hard, heavy, and strong wood.</p>	
<p>8.</p>	<p>Silver Maple</p> <p>(<i>Acer saccharinum</i>)</p>  <p>Nature Journaling</p>	<p>The silver maple is a deciduous tree with smooth bark, gray when young and becoming shaggy with age. Leaves are deeply lobed (5 lobes), with coarse, sharp, and irregular teeth. Fall leaf color is yellow and brown, Flowers are short stalked, red to greenish, without petals and appear in late winter. The buds are an important food for squirrels when stored food is depleted, particularly in late winter and early spring. The seeds are eaten by many birds.</p> <p>Silver maple sap can be used to make a light syrup, although the sugar content of the sap is the lowest of the maple species used for syrup. The sap has been used for kidney, liver and other ailments.</p>	



# Bellevue Neighborhood Tree Ambassador Program

9.	<p>Gandhi Statue</p>	<p>A favorite of the authors of this tour, this statue of Mahatma K. Gandhi (1869-1948), is a symbol that is timeless and relevant with its message while reminding us of the diversity of Bellevue and the power of peaceful non-violent demonstration as a catalyst for change with equality as the foundation for justice. The request for and fulfillment receiving the statue from the Indian Government was a special acknowledgement. The 1,000-pound bronze sculpture — by Indian artist Anil R. Sutar depicts Gandhi holding a staff in his right-hand striding forward.</p>	
10.	<p>Hornbeam (<i>Carpinus</i> sp.)</p> 	<p>These are a set of trees behind Gandhi statue before turning toward the playfield walkaway.</p> <p>Hornbeams are deciduous trees with multi-stemmed and wide spreading branches. Leave are oblong shape, margin is doubly serrated, with deeply impressed vein pairs. They are dark green in summer, and yellowish in fall. Male and female flowers in separate clusters (catkins) on the same tree.</p>	




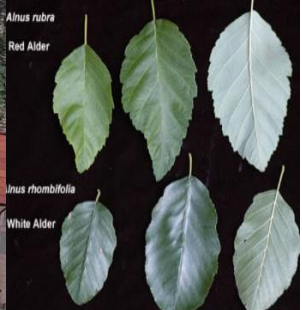
11.	<p>Quaking Aspen</p> <p>(<i>Populus tremuloides</i>)</p>	<p>This is the first tree you see turning to the walkway from the plaza towards the playfield. Now we are entering into different natural elements. Do you see the relation between the type of natural elements and each place?</p> <p>This is a broadleaf, deciduous tree with a narrow shape, long trunk, and rounded crown when mature. Leaves are oval-shaped, shiny green, with serrated edges and pointed tips. Laterally flattened petioles allow leaves to flutter in the slightest breeze (to "quake" – hence the name quaking aspen).</p> <p>Older than the massive sequoias or the biblical bristlecone pines, the oldest known aspen clone has lived more than 80,000 years in Utah's Fishlake National Forest. Not only is this tree the oldest living organism, weighing in at an estimated 6,600 tons, it is also the heaviest.</p> <p>Throughout the year, aspens provide food and habitat for a variety of creatures.</p> <p>Although a soft wood, aspen is relatively strong and has been used in making furniture, chopsticks, etc. It is used to treat several ailments because it contains salicylates, chemicals similar to aspirin.</p>	
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# Bellevue Neighborhood Tree Ambassador Program

12.	<p>Tuliptree</p> <p>(<i>Liriodendron tulipifera</i> 'Arnold')</p>	<p>The tulip is deciduous tree, that can to 70-150 feet, with a strong central leader and a narrow ovoid shape. In winter buds come up that are valve-like, resembling a duck's bill. While sometimes confused with maples, it is in the magnolia family.</p> <p>Tulip-like flowers bloom in spring, with greenish-yellow petals, orangish interior. The spring flowers provide nectar for ruby-throated hummingbirds. The seeds provide food for both birds and mammals including finches, and squirrels.</p>	
13.	<p>Red Alder</p> <p>(<i>Alnus rubra</i>)</p>	<p>Red alders are deciduous trees, with a conical shape and spreading branches. Leaves are serrated, oval, margin coarsely toothed. Alders produce male and female catkins in winter. The female catkins develop into green cones that turn brown and stay on the plant through the winter.</p> <p>In Celtic tradition, the alder symbolized the resurrection of life after the spring equinox in mid-March, and it is the favorite tree of fairies.</p> <p>Native Americans used the wood to make utensils and bowls, ate the inner bark in spring, and considered it the only wood suitable for smoking salmon. The tree was an important source of natural dyes: red and orange from the bark, brown from the twigs, and green from the catkins.</p>	




## Bellevue Neighborhood Tree Ambassador Program

		<p>The alder served as a powerful medicine as the bark produces salicin, an anti-inflammatory agent.</p> <p>Going back thousands of years, alder was the go-to source for wood pilings that supported bridges and Neolithic crannogs (artificial islands) as the wood is extremely resistant to decay underwater (alder rots rapidly when exposed to oxygen). Much of Amsterdam was constructed upon alder supports, and Venice, the “floating city,” was built mostly upon pilings of alder and oak brought in from Croatia beginning in the 5th century A.D.</p> <p>Today, red alder is the most important commercial hardwood in the Pacific Northwest. It stains easily, polishes and paints well, and rarely splits.</p>	 
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14.	<p>Ashwood PlayField along the West side of the parking garage walkway)</p> <p>Ginkgo (<i>Ginkgo biloba</i>)</p>	<p>Ginkgo is a large, deciduous tree that matures to 50+ ft tall. Trees drop a major proportion of their fall foliage over a short period of time, sometimes during a single night.</p> <p>They are dioecious (separate male and female trees); male flowers (sometimes called pollen cones) are catkin-like, female flowers are long stalked, and solitary. "Fruit" on female plants is actually not a true fruit but a naked seed (Ginkgo is a gymnosperm = <i>gymno</i>, naked, and <i>sperm</i>, seed) with a fleshy covering, messy and malodorous when ripe. Sometimes fruit is set without pollination. It may be twenty or more years before a seedling flowers sets fruit. The female tree is rarely planted due to messiness.</p> <p>Revered for its beauty and its longevity, the ginkgo is a living fossil, unchanged for more than 200 million years, predating angiosperms by 100 million years. The elegant, fan-shaped leaves, and nuts are prized for their medicinal properties. It is an oddity in nature because it is a single species with no known living relatives. It has made its way from China across Asia to the West. However, in eastern Washington petrified wood and forests a ginkgo fossil was discovered in 1932. This tree is an example of its toughness and resilience has enabled it to thrive, and it co-existed with the dinosaurs.</p>	
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## Bellevue Neighborhood Tree Ambassador Program

15.	Living Walls & Mother Nature	<p>Nature Elements: Red sandstone, glass, wood, concrete, and brick walls decorated with the nature.</p> <p>Notice the fluidness of this two-story natural mural decorating three sides of the garage. This wall consists of more than 80 species of plants. Forming a semi-abstract wave, the vegetation grows straight out of the north, west, and east walls from a hydroponic irrigation system; the largest of the walls is on the garage's east side. Different plants bloom at different times of the year and change the character of the wall as the seasons progress.</p> <p>This is like an artist natural canvas with specific focal points. Each time we observe this canvas, we find different specific elements. Nature never fails to impress us, and these walls are symbolic of that mother.</p>	
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## Bellevue Neighborhood Tree Ambassador Program

16.	<p>Chanticleer Pear &amp; Bowhall Red Maple</p> <p>(<i>Pyrus calleryana</i> and <i>Acer rubrum</i> 'Bowhall')</p>	<p>After the Ginkgo trees, continue along Ashwood Playfield and turn right at the connector. Now before crossing 110<sup>th</sup> and 12<sup>th</sup> crosswalk look back at the traffic light: you will see a row of beautiful trees.</p> <p>Do you recognize those trees by their beautiful form? These are Chanticleer pears and red maples. From here if you look across to McCormick Park and the median you will see more Bowhall red maples.</p> <p>Chanticleer_pear is a very tight narrow pyramidal form. It grows up more than out and is suitable for narrow spaces.</p>	
		Thank you!	

*"Look deep into nature, and then you will understand everything better." – Albert Einstein*



