

Order	Common Name	Scientific Name	Characteristics	Location	Grid	Notes
31	Black willow	<i>Salix nigra</i> (Salicaceae)	Bark: brown to gray-black, scaly ridges, deep furrows Leaf: alternate, simple, lanceolate, 3-6" long, finely serrate margin Twig: slender, orange-brown, bitter aspirin taste, small buds Flower: dioecious, tiny, green, on catkins 1-3" long, early summer Fruit: cone-shaped reddish-brown capsules 1/8", many small, cottony seeds, mid-summer	S end of lake Lonnie near culvert	K9	30-40 ft, up to 100 ft; wet sites along streams; fast growing, weak wood; short-lived; may have multiple trunks; fall color - yellow propagates with cuttings
32	Pecan	<i>Carya illinoensis</i> (Juglandaceae)	Bark: smooth when young, becoming scaly-flaky Leaf: alternate, odd-pinnately compound, inequilateral 9-17 falcate (crescent shaped) leaflets, serrated w/black gland at the tip of each "tooth"; slight sickle-shaped hook near tip, deciduous Flower: monoecious, pointed valvate bud, inconspicuous Fruit: nut surrounded by a very thin oblong seamed husk, edible, fall	E of Trading Post	K9	60-80 ft; tall, straight trunk, often buttressed base, usually vase shaped canopy; fall color - yellow; important native nut tree
33	Black tupelo Black gum Sour gum	<i>Nyssa sylvatica</i> (Nyssaceae)	Bark: brown scaly ridge and shallow furrow (platelet when older) bark, older bark looks like alligator hide Leaf: alternate, simple elliptical-obovate, entire, revolute, short petiole, acute tip; deciduous Flower: dioecious, inconspicuous, yellow or green Fruit: drupe (cluster of berries) 1/2", dark purple-black	SW of Demonstration Vegetable Garden at culvert N of Fern Glade, S of Gem Mining	K10 K9	60-80 ft; found in low/moist sites; (water tupelo) pyramidal when young; horizontal branches; fall color - bright scarlet red; good yard tree
34	Green ash (similar to White ash)	<i>Fraxinus pennsylvanica</i> (Oleaceae) <i>(Fraxinus americana)</i>	Bark: grey, narrow, lumpy, interlacing (diamond pattern), ridge & furrow Leaf: opposite, odd-pinnately compound, (7)-9 glossy, elliptic leaflets w/pointed tip, (WA more rounded, pale underneath) entire (smooth) to mid point & sparsely serrated (toothy margins) from mid point to tip; rachis is zig-zagged; <i>axillary bud is on top of the leaf scar (can be seen), leaf scar straight-across; (WA - axillary bud is covered by petiole (can't be seen without removing leaf), leaf scar horseshoe shaped)</i> deciduous Flower: dioecious, inconspicuous, purplish, early spring Fruit: single winged, narrowly obovate samara (flat baseball bat shape), hangs in clusters up to 3 in long (WA samara wider), fall	W of Demonstration Vegetable Garden on streambank; NE of south bathrooms (S Dogwood Trail just west of old stump)	K10 P8 (N6)	60-80 ft; largest range of any ash: Nova Scotia to Alberta south to FL, TX; moist-wet sites (WA drier sites); fall color - yellow; (WA yellow-purple); currently under scrutiny for signs of attack by the Emerald ash borer (1/8 in "D" shaped holes in trunk, sudden crown die-back, bark splits, and epicormic sprouting); (WA was used for baseball bats)
35	Boxelder	<i>Acer negundo</i> (Sapindaceae) <i>(formerly Aceraceae)</i>	Bark: gray to brown, smooth to shallow ridge & furrow Leaf: opposite, odd pinnately compound, 3-5 (7) coarsely serrated or somewhat lobed leaflets; deciduous Twigs: young twigs green Flower: can be monoecious or dioecious, inconspicuous, held in clusters before leaf-out Fruit: paired (double) winged samara, fall	S of Demonstration Vegetable Garden; N of Fort/sandcastle	K10	40-60 ft; AKA "Poison-Ivy-Tree" because the leaflets resemble poison ivy; short-lived; suckers profusely; fall color - yellow
36	Cucumber magnolia	<i>Magnolia acuminata</i> (Magnoliaceae)	Bark: smooth with prominent lenticels, light grey (pebbly) Leaf: alternate, simple, large (6-12") broadly elliptic-obovate, thin, fuzzy petiole and undersides, entire, wavy margins; base V-shaped, acuminate tip, deciduous Twig/Bud: stipule scar encircles twig, buds valvate, fuzzy Flower: monoecious, green-yellow, slightly fragrant, 2-3" bell-shaped, 9 elliptic curled petals, spring Fruit: cone-like cluster of follicles (looks like lumpy cucumber), releases red-coated seeds in fall	adjacent to the Demonstration Vegetable Garden N Azalea Trail by 1st bridge	K11	50-80 ft; native to low/moist site in E USA (northern-most range for Magnolia); branches held horizontally with prominent branch collars and distinct swollen shoulder wrinkles; fall color - yellow-brown

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37	Black walnut	<i>Juglans nigra</i> (<i>Juglandaceae</i>)	Bark: thick, brown/black/dark ridge & furrow Twigs: pubescent (fuzzy), light colored chambered pith Leaf: odd- and even-pinnately compound, 15-19 (up to 23) subopposite, lanceolate, serrated leaflets, 3-lobed leaf scar; deciduous Buds: valvate, fuzzy Flower: monoecious, inconspicuous, up to 3" green male catkin Fruit: nut in round, very hard un-seamed husk, held 2-3 per cluster	N of Fort/sandcastle W of Trading Post	K10 K9	60-90 ft; allelopathic: secretes juglandin, a substance that suppresses the growth of other species; tap root; fall color - yellow; wood very expensive, often used as a veneer
38	Black cherry	<i>Prunus serotina</i> (<i>Rosaceae</i>)	Young Bark: smooth, grey & shiny w/prominent lenticels (horizontal stripes) Older Bark: very dark grey-black flaky-scaly, upturned edges, horizontal lenticels Leaf: alternate, simple, narrowly elliptic with pointed tip & base, serrated, red hairs along midvein, glands on petiole; deciduous Flower: monoecious, 1/2" showy white cylindrical clusters 4-6" long on ends of twigs after leaf-out Fruit: drupe (cluster of hard berries) purple	S of Demonstration Vegetable Garden; N of Fort/sandcastle	K10	30-60 (100) ft; leaves are poisonous (cyanic acid); wood used to make fine furniture; fall color - yellow/orange to crimson
39	Common hackberry	<i>Celtis occidentalis</i> (<i>Cannabaceae</i>) (formerly <i>Ulmaceae</i>)	Young Bark: smooth & warty Older Bark: "layered" ridge & furrow; often ridge & furrow to first branches, then smooth/warty above Leaf: alternate, simple, ovate, 2-5" long, singly serrated, dull, rough surface, inequilateral base, light green, 3 prominent veins; deciduous Flower: monoecious, green, held in clusters after leaf-out, inconspicuous Fruit: 1/4" red/orange - purple drupe, summer, persistent through winter	S of Demonstration Vegetable Garden; W of Garden of Hope	L10	40-60 ft; short, straight trunk; some branches appear twisted; bark looks like 'canyon'; often gets insect galls; high pH indicator species; fall color - yellow
40	Sweetgum	<i>Liquidambar styraciflua</i> (<i>Altingiaceae</i>) (formerly <i>Hamamelidaceae</i>)	Bark: grayish brown, interlaced ridge and furrow Leaf: alternate, simple, 5-7 finely serrated lobes, glossy (star-shaped); deciduous Twigs: may have corky "wings" Flower: monoecious, inconspicuous, green, hairy, held in clusters in spring; Fruit: hard, round, spikey ball (capsule), gumballs persist into winter	N of Fern Glade	K10	50-100 ft; upright/tall growth habit; may develop root-suckers; fall color - yellow/red/purple; strip twigs and chew for sweet-breath; seedless variety 'Rotundifolia'
41	Bigleaf magnolia	<i>Magnolia macrophylla</i> (<i>Magnoliaceae</i>)	Bark: Smooth & pebbly, noticable bark ridge/branch collar Leaf: alternate, simple, huge (24-32") obovate w/ auriculate base, thin, fuzzy petiole and undersides, wavy margins, deciduous Twigs: large leaf scar, stipule scar encircles twig Bud: valvate, fuzzy Flower: monoecious, white, fragrant, 10-16" cup-shaped, 9 elliptic petals, summer Fruit: cone-like ovoid-round cluster of follicles, red-pink seeds in fall	N of Fern Glade near stream behind south bathrooms	K9 P8	30-40 ft; open, upright symmetrical habit; native to low/moist sites SE USA (interior) still fairly uncommon within its range; largest simple leaf of any spp. native to USA; fall color - yellow
42	Slippery elm Red elm	<i>Ulmus rubra</i> (<i>Ulmaceae</i>)	Bark: grey/red-brown, rough plates separated by irregular furrows Leaf: alternate, simple, doubly serrated, rough leaf surface, unequal leaf base; deciduous Twigs: grey-brown, hairy/young - hairless/older Buds: pointy, purple-black, covered in rusty hairs Flower: monoecious, perfect, apetalous, inconspicuous, green/dark red, in dense bundles before leaf-out Fruit: single round papery samara, held in clusters each on a short stalk	NW of Fern Glade, beside gravel bridge	K9	60-80 ft; broad (often vase-shaped)crown; high/dry sites, but can adapt to low/moist; susceptible to Dutch Elm Disease (fungus spread by Elm Bark Beetle); Slippery inner bark, when boiled eases queasy stomach; fall color - yellow