



Tree Protection Beaux Arts Village

Trees are an integral part of Beaux Arts Village. They are a key component of the town's identity as a forested neighborhood, and they contribute to our property values. Ecologically, they manage stormwater through the town by intercepting rain and slowing dispersal rates. They also uptake water, provide wildlife habitat, moderate micro-climates, and improve mental health for all of us. But a tree can be irreparably damaged in a few short moments, which can permanently disrupt all these benefits. Although a permit is not always required to install landscapes or repair driveways and hardscapes, tree roots and trunks may be damaged accidentally during these projects.

All right of way trees in the town are protected by city code (BAV MC 12.15.090). It is the responsibility of the homeowner to ensure right of way trees are not damaged by their actions, or the actions of their contractors. This document is designed as a guideline to help homeowners make informed choices when completing small landscape and construction projects near trees, helping them be proactive about tree protection.

Landscaping, Driveways, & Hardscape Repairs

Keeping trees alive and healthy during a project is straightforward: protect the roots below ground as well as the canopy above ground. Preserve as much green foliage as possible so the plant can continue producing food for its roots. Keep its roots alive so they can continue pumping water and nutrients back to the leaves. And, since the root system depends directly on the condition of the soil, protect the soil from compaction.

Once a tree's root system is impacted, it is difficult or impossible to repair the damages incurred. To make matters more complicated, the symptoms and consequences of damage may not be visible for months or years after an impact occurs. Roots cut for a utility line may leave a tree vulnerable to failure in a windstorm a decade after the work occurred. Soil compacted by equipment used to pave a driveway might contribute to chronic stress that causes the tree to decline and die three summers later.

Since it is not often feasible to repair past damages, and difficult to calculate whether trees will recover or succumb as a result of damages, the best approach is to protect them from the beginning.

Do

- Discuss tree protection at the beginning of a project, and identify right of way trees.
- Install temporary orange construction fencing and signage.
- Limit parking to paved surfaces.
- Keep contractor parking 15 feet from trees if parking on bare soil.
- Mulch exposed soil.
- Irrigate if irrigation is turned off.
- Re-route trenches away from trees.
- Cut roots cleanly if you encounter them.
- Monitor the tree for changes.

Don't

- Drive or park on bare soil within 15 feet (this compacts the soil).
- Store anything within 15 feet of a tree (no temporary storage of equipment, landscape pavers, or construction supplies).
- Dump waste under the tree (e.g. drywall, cement, or paint).
- Dig trenches near the tree (this cuts roots and decreases water uptake by the tree).
- Rip or tear roots, or leave them exposed.
- Prune the tree unless necessary.

How and Why?

Protect Soils. Driving, parking, storing materials, or even heavy foot traffic can destroy soil structure and compress it which makes it difficult or impossible for roots to grow. This flattening cannot be un-done.

Tree roots rely on the space between grains to hold water and oxygen for them. When these spaces are gone, roots must grow on the soil surface where they are less efficient. They become tripping hazards, and they are easily damaged by mowers, shovels, animals, and extreme temperatures.

If you must remove and replace soils as part of a project, consider amending them with organic matter like well-aged compost before putting the soil back into the hole or trench. If you are raising the grade, use a sandy loam topsoil where possible. A mixture of 60 percent sand and 40 percent compost is far more conducive to root growth than sand alone.

Mulch. Bare soils create harsh conditions for a tree. In most natural settings, trees make use of a layer of decomposing organic matter on the top of the soil near them. This organic matter helps retain soil moisture, moderate soil temperature, and supplies the tree with nutrients as it decomposes.

Trees can often provide what they need for themselves with their leaf litter. When leaf litter is regularly removed, tree owners need to supply the tree with an alternative organic layer in the form of mulch. A well-mulched tree is a happy tree. When it doesn't have to fight for water or oxygen below ground, the tree has more energy to fight off insect pests and pathogens.

Mulch also helps keep soil from compacting. Covering an area with 4 inches of coarse woody mulch to help cushion the impacts from foot traffic and rain. The best mulch is arborist wood chips, not bark. These coarse chips include all wood fibers of a tree and breaks down. Bark is only the waxy outer layer of a tree which repels water and doesn't break down into soil as quickly.

Mulch should be maintained 6-12 inches away from the base of any tree or shrub. Perennials (e.g. hostas, day lilies) do not respond as well to woody mulch and

need a mulch that is further along in its decomposition process.

Irrigation. Trees growing in the right of way often have limited soil volume, or are growing in soil that has already been damaged. Additionally, increasingly hot and dry summers mean that even established trees can suffer from drought stress, which in turn makes them vulnerable to construction impacts.

While exact irrigation schedules will vary based on tree species and soil type, Irrigating trees several times per month May-September is a good general guideline.

Plan ahead. Improving the conditions around your tree by mulching it with coarse woody mulch and irrigating it prior to impacts will set the tree up for success and help it recover. If you have a project planned in proximity to a tree, ask the contractor to create a tree protection plan, and discuss it before work begins to be sure the plan is feasible.

Workers may not realize that a proposed project could have serious impacts to trees. In general, any impacts within 10 feet of a tree greater than 5 inches diameter should not be done without a well thought out tree protection plan.

Avoid multiple or compounding impacts to damaged trees. If the roots of a tree were recently impacted, and the tree is heavily pruned that same year, The tree could decline when either impact by itself may not have resulted in that outcome. Deferring impacts across several years can improve the likelihood of recovery.

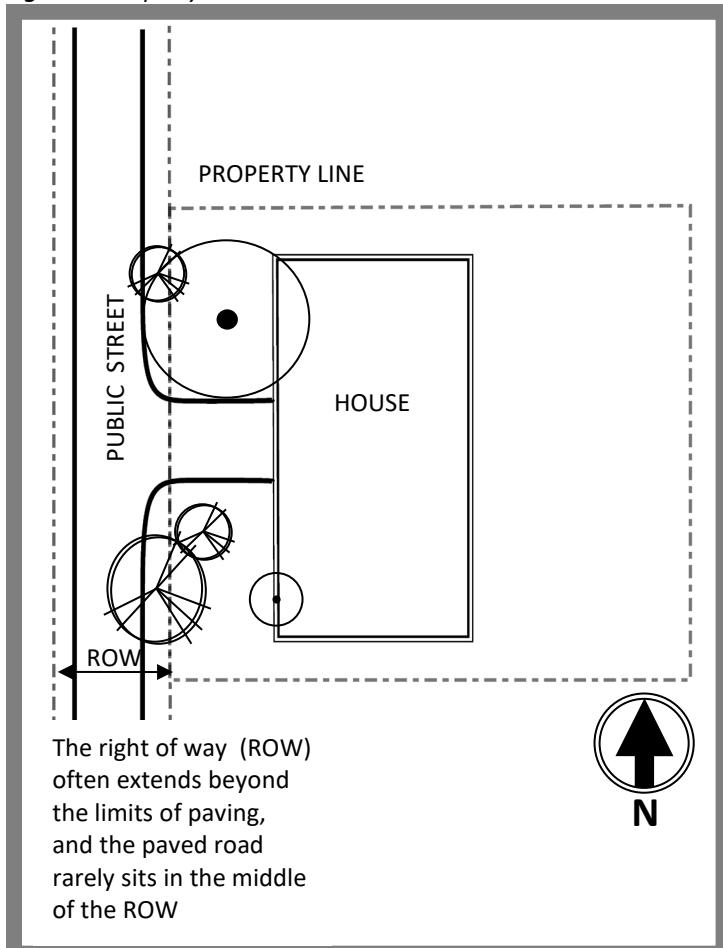
Prune roots. If roots must be impacted, do it properly. Cutting roots cleanly with a reciprocating saw, sharp hand saw, or loppers is better than ripping roots and allowing them to dry out. Clean root cuts will minimize the impact and allow the tree to recover from most efficiently from root loss. Cover roots with burlap or plastic if they will remain exposed for more than a few hours.

Signage and fencing. Orange construction fencing and a simple waterproof sign that says 'Tree Protection Fencing, Do Not Move' is an inexpensive way to clearly relay to workers and guests alike what the intent is in a protected area. Without the signage, fencing can be in place for many reasons. A sign keeps people from guessing.

Right of Way (ROW)

The right of way often extends beyond the limits of paving in Beaux Arts, and the paved road rarely sits in the middle of the right of way. Surveyor markers (metal monuments and wooden stakes) placed by a professional surveyor are the most accurate way to determine where your property line is. King County GIS maps (<https://gismaps.kingcounty.gov/parcelviewer2>) are less accurate but can give a general location of lot lines (within a 10-foot margin of error).

Figure 1: Property lines in Beaux Arts



Resources:

Tree Removal Permits

Angela Kulp, Deputy Clerk
bldgdept@beauxarts-wa.gov
425-269-6985

Right of Way Trees

Paula Dix, Councilmember
pdix@beauxarts-wa.gov

Town Arborist

Tree Solutions Inc.
Consulting Arborists
www.treesolutions.net
206-528-4670

Third Party Consulting Arborists

American Society of Consulting Arborists
www.asca-consultants.org

Plant Amnesty Referral Service

www.plantamnesty.org
206-783-9813