

Trees & Development

Presented to:



SIERRA
CLUB
Comox Valley

Presented by:



Mumby's Arboriculture Consulting
Division of Mumby's Tree Services Ltd.

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Presentation Topics:

- How to select the right tree & the right planting location,
- How trees tell you what they need,
- How mature trees can be retained.

Ask yourself the following questions;

Why do you want to plant a tree?

- to provide shade
- to provide fruit
- To provide seasonal color
- To act as a windbreak or screen

What is the size and location of the planting site?

- ◉ Space enough for a **large**, **medium**, or **small** tree?
- ◉ **Are there overhead or below ground wires or utilities?**
- ◉ Do you need clearance for sidewalks, patios or driveways?
- ◉ **Are there other trees in the area?**
- ◉ Are there barriers to future root growth, such as building foundations?

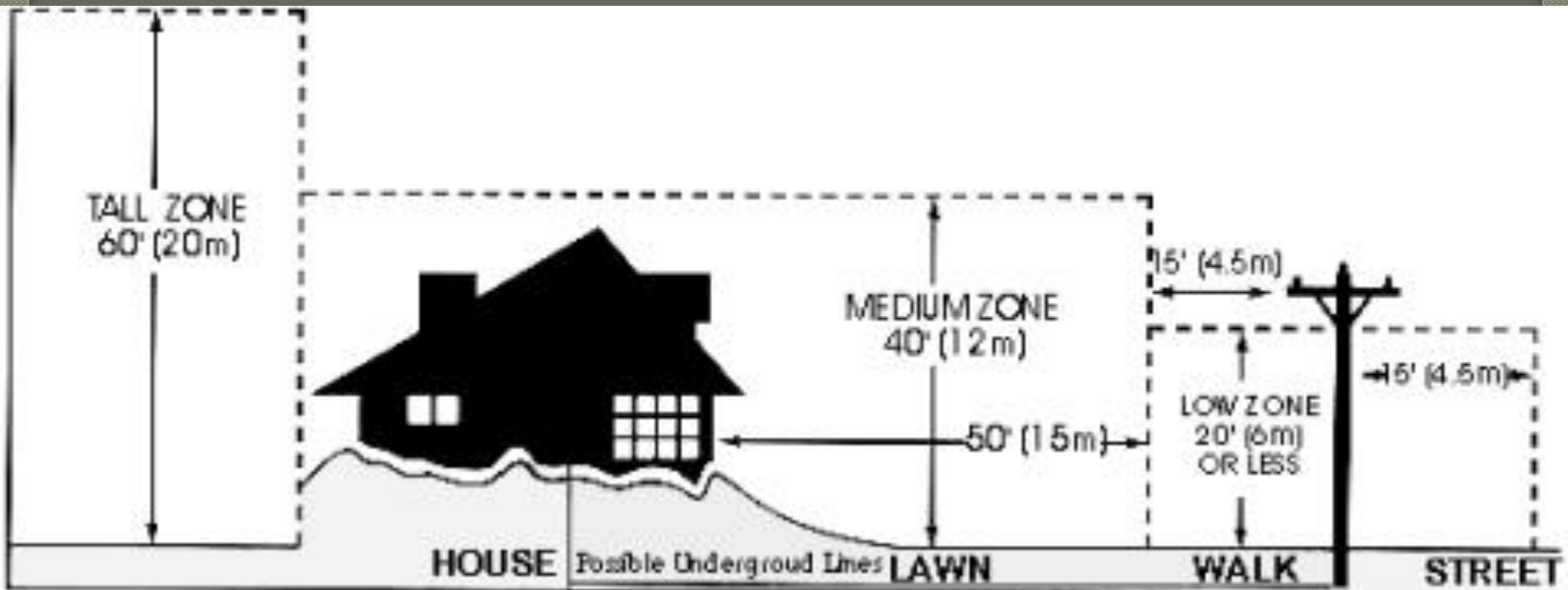
Planting under power lines



Wrong tree, wrong place.

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Planting Locations

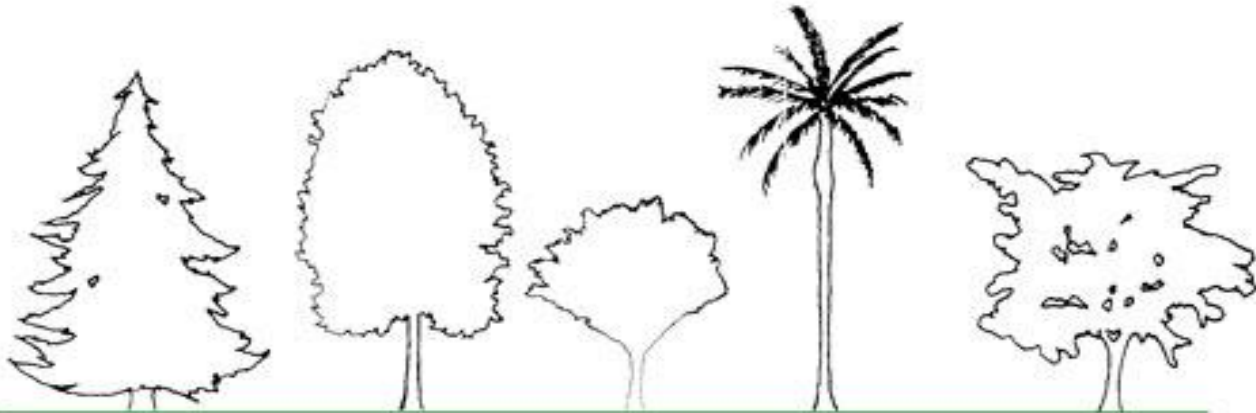


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CALL BEFORE YOU DIG

1-800-474-6886

Consider tree form



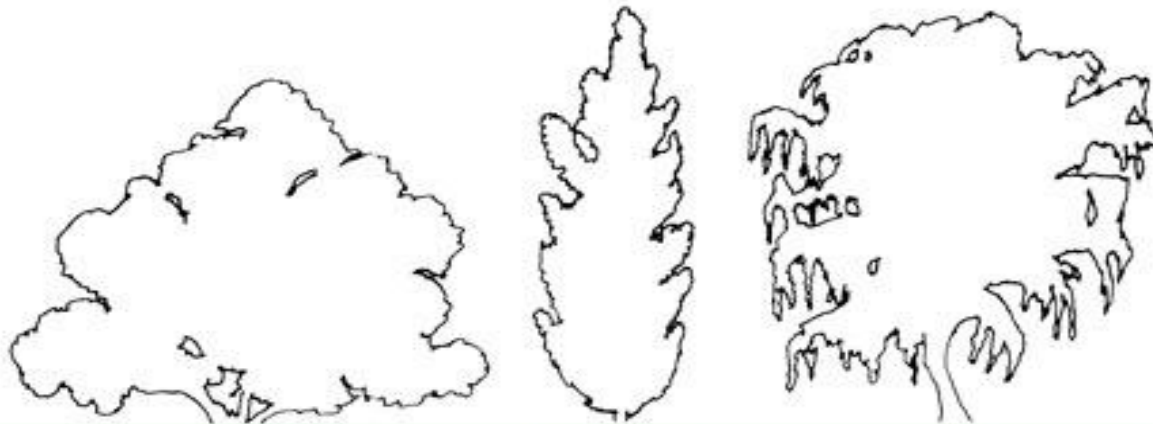
Pyramidal

Full-crowned

Vase

Fountain

Spreading



Layered

Columnar

Weeping

Which type of soil conditions exist?

Is the soil

- deep, fertile, and well drained?
- shallow?
- compacted and infertile?



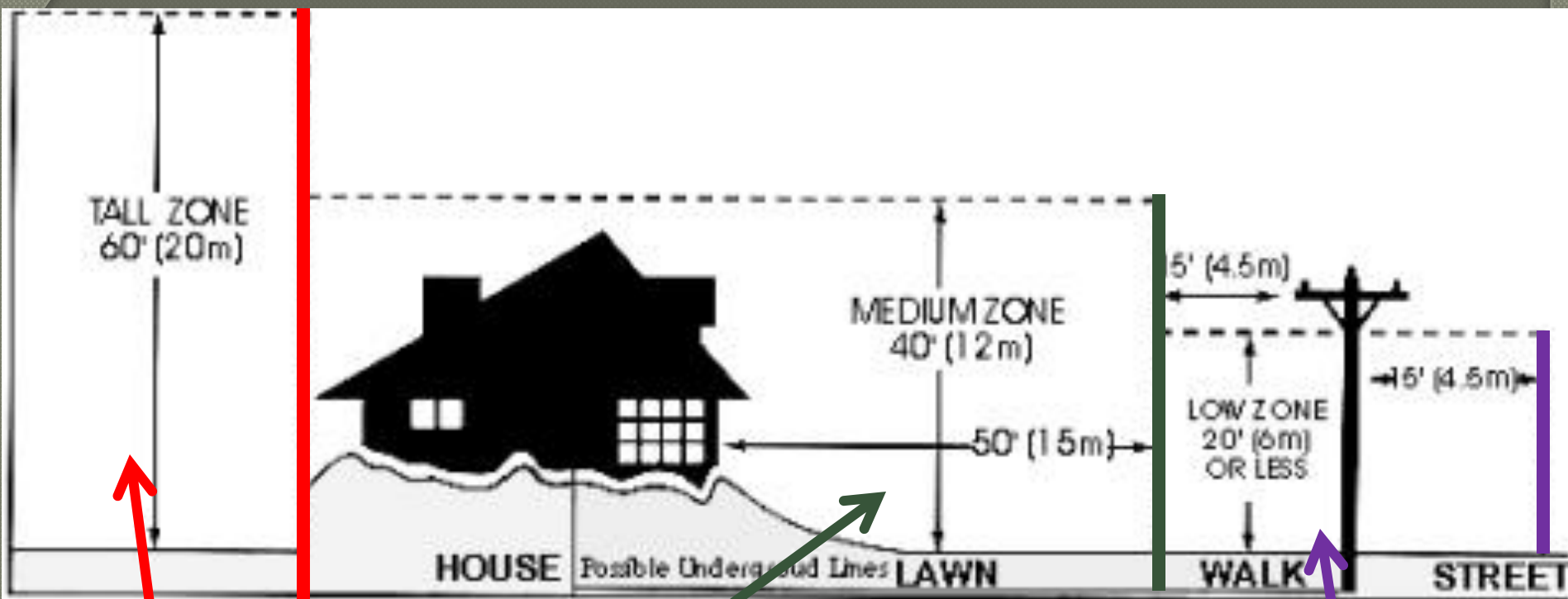
Which type of maintenance are you willing to provide?

- Do you have time to **water**, **fertilize**, and **prune** the newly planted tree until it is established?
- Will you be relying on your garden or tree service for assistance?



Some other site conditions to consider before selecting a tree for planting;

- ◉ exposure (sun and wind),
- ◉ human activity,
- ◉ drainage,
- ◉ space constraints, and
- ◉ hardiness zone.



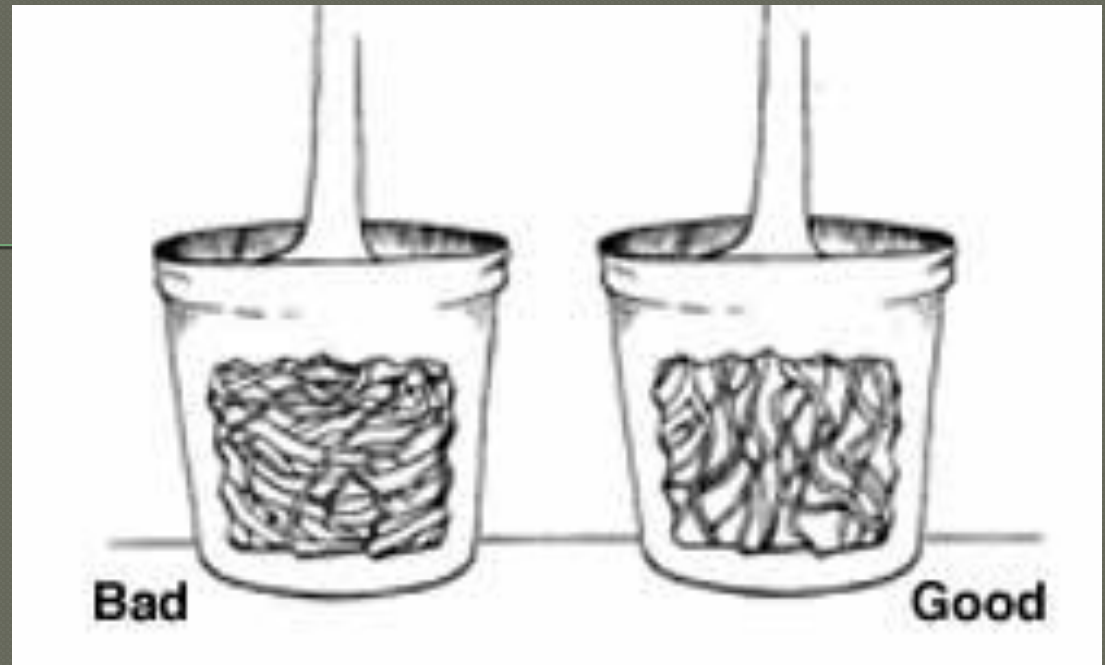
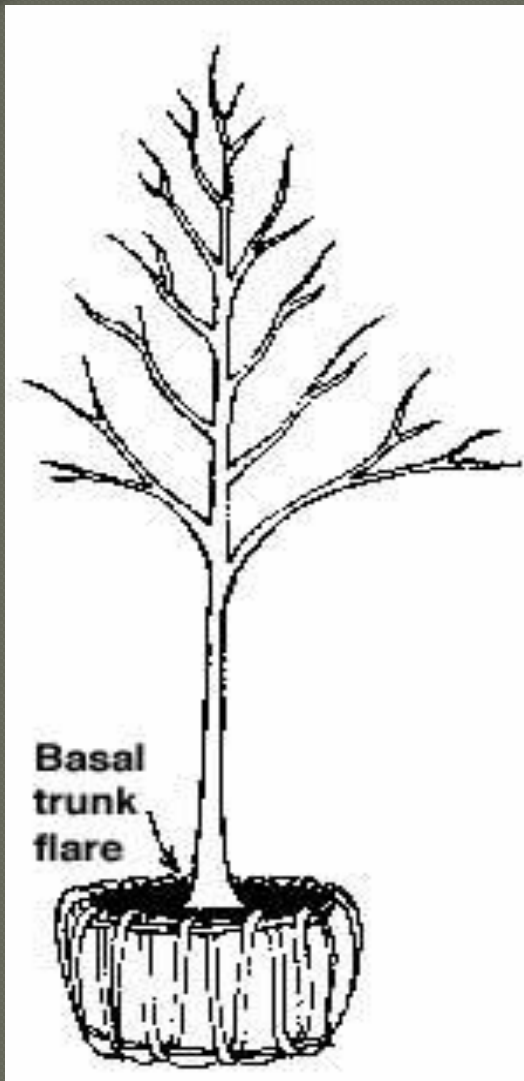
- Conifer
- Beech
- Walnut
- Maple

- Ornamental
- Fruit
- Dwarf conifer
- Small Maple

- Japanese Maple
- Lilac
- Pyrus
- Dwarf fruit

A high-quality tree has:

- **enough sound roots to support healthy growth.**
- **a trunk free of mechanical wounds and wounds from incorrect pruning.**
- **a strong form with well-spaced, firmly attached branches.**



Trunk flare should be obvious. Be on alert for trees planted too deeply in containers or trees “buried” in fabric bags. You should be able to see the basal trunk flare with container-grown plants. If the trunk flare has been buried, gently expose it before planting the tree, taking care not to damage the bark.

**Poor
form**



**Good
form**

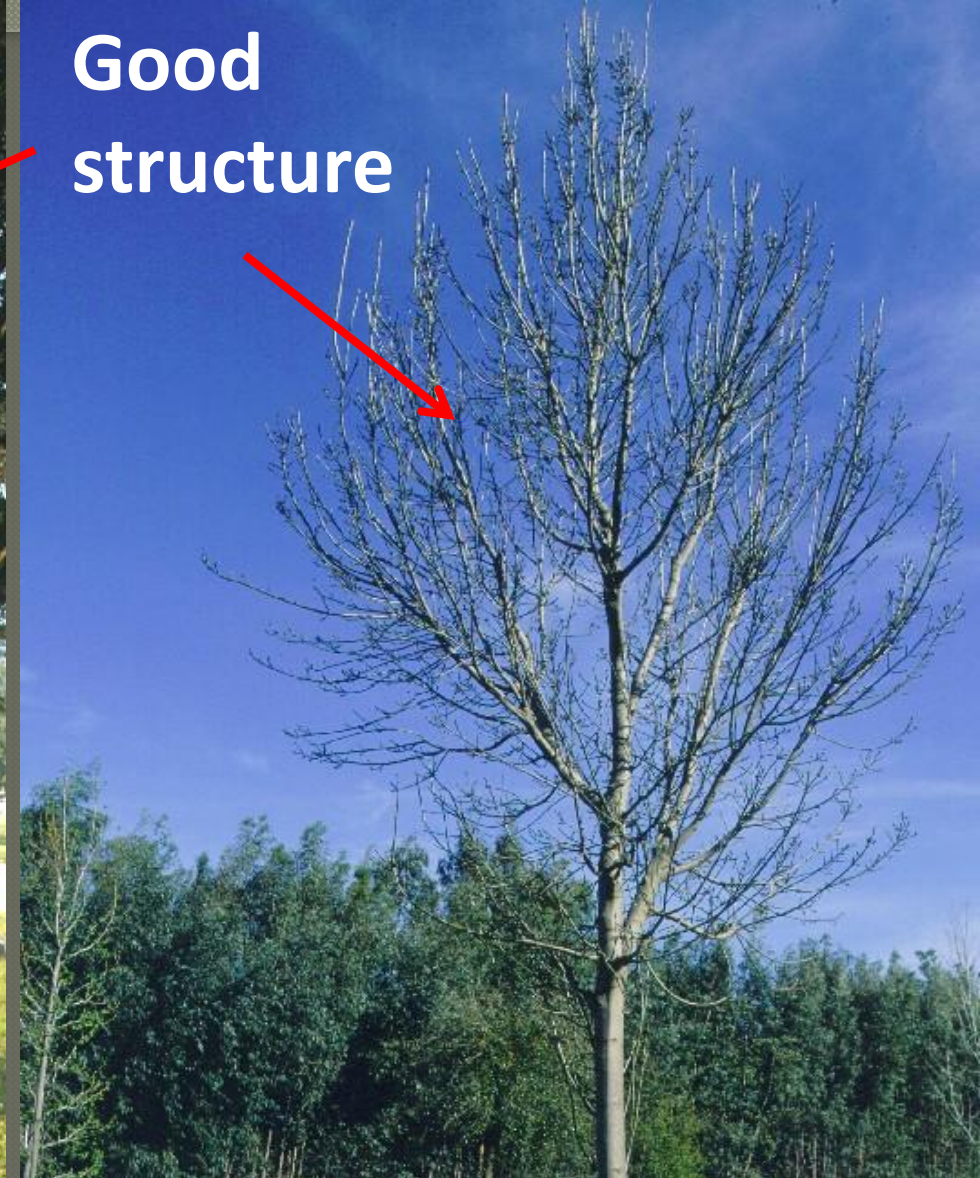


Principles of strong structure:

- One dominant trunk**
- Strong branch unions**
- Balanced canopy**



**Good
structure**



Principles of strong structure:

- One dominant trunk**
- Strong branch unions**
- Balanced canopy**



Trees tell you what they need.

Mature trees can be retained.



● Mature Trees



Garry oak at Victoria Airport

80 year old Douglas fir trees in Courtenay.



2nd growth
trees retained
on private
property.





100 year old
Douglas fir
with eagle
nest.

Grove retention between residences near the ocean.



Grove of trees retained on new residence building site.



Tree Root Myths;



Image Credit: [The Arbor Centre](#)

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- Conifer tree roots are no more shallow than broadleaf tree roots.
- A tree's root system is not a mirror of its crown.
- Not all trees have or can maintain a tap root, due to the conditions below ground.

Size of root plate

Tree Diameter Structural Root Distance

	<u>Radius</u>
10 cm (4 in)	1 meter (3.3 ft)
15 cm (6 in)	1.2 meters (4 ft)
25 cm (10 in)	1.8 meters (6 ft)
30 cm (12 in)	2.1 meters (7 ft)
40 cm (16 in)	2.4 meters (8 ft)

The root plate encompasses structural roots, which can not be damaged or disrupted without potential of structural failure.



Severing one major root can
cause the loss of 5 to 20 % of the
root system.



The roots of a tree extend far from the trunk and
are found mostly in the upper 6 to 12 inches of soil.

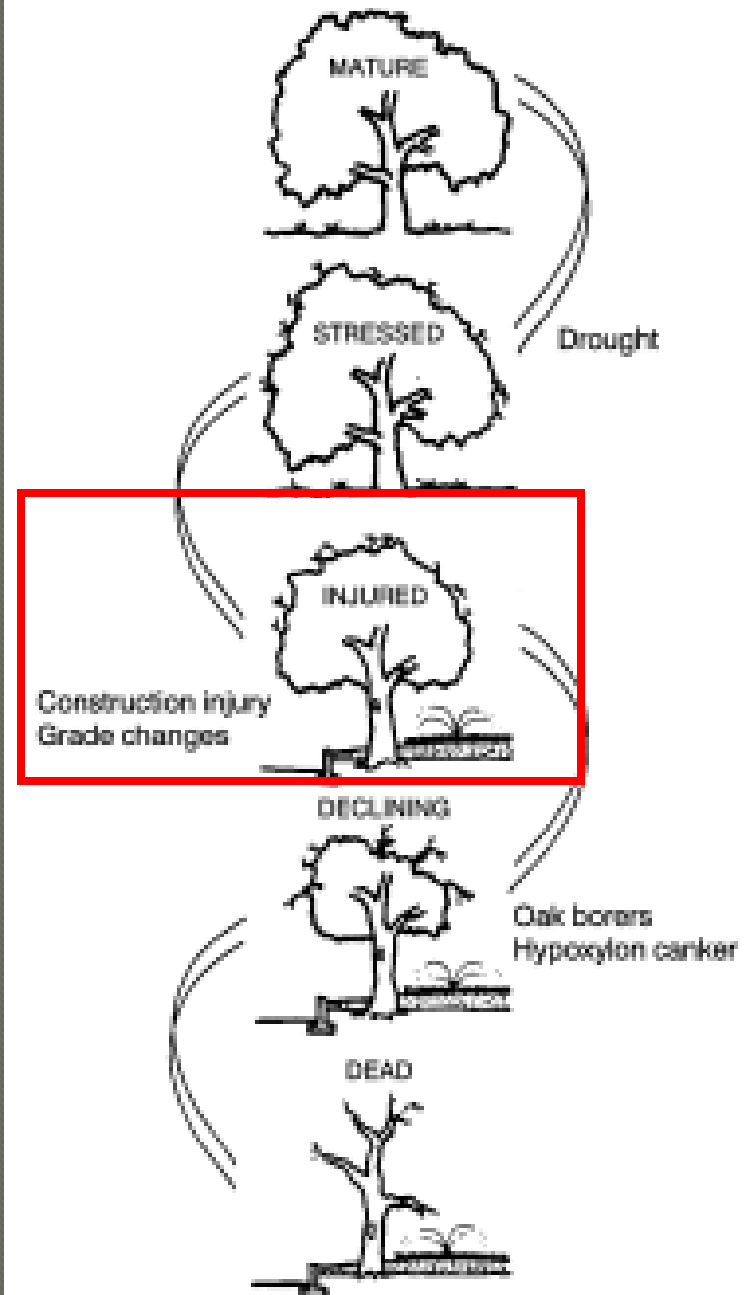


Decayed
structural roots



Irrigation
system





Warning Signs You Should Know



- ❖ Past tree care & circumstances can affect the health of your trees.
- ❖ **Construction, trenches, and tree topping** can all have adverse effects on your tree.
- ❖ If roots have been cut or disturbed, the tree may become unstable.



Topping is one of the fastest ways to reduce the life span of a tree and to make a tree hazardous.

❖ Trees cannot seal the cuts, allowing decay to easily develop.

❖ Waterspouts are not strongly attached.







Lean

- Trees do not necessarily grow straight up. However, trees with a significant lean can indicate a problem.
- Look for cracked soil and exposed roots around the base of the tree which may indicate the tree has recently begun to lean.



Deadwood

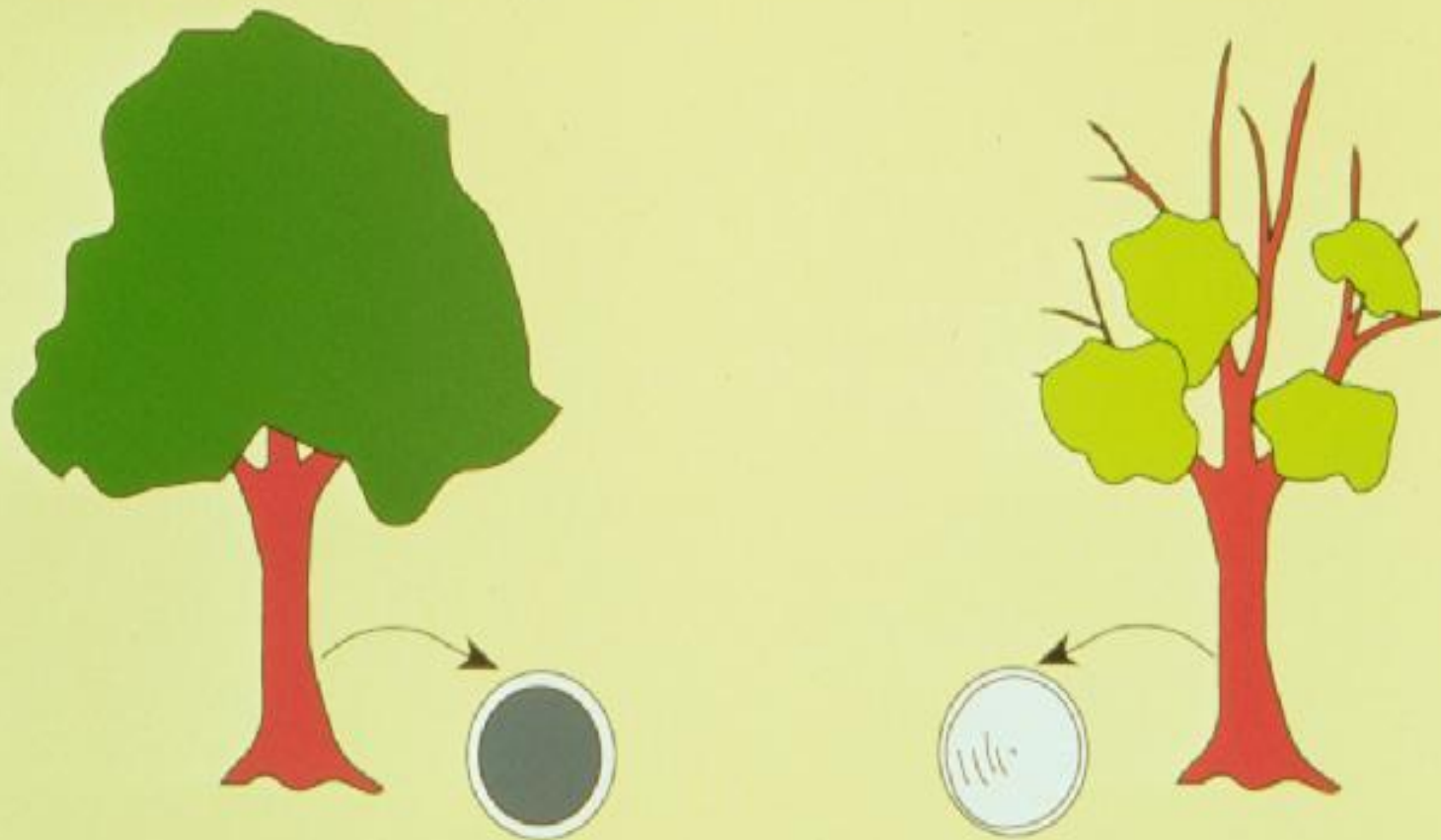
- Deadwood, or dead branches, are a normal part of a tree's growth pattern but **will eventually fall**. Branches over two inches in diameter can cause serious damage when they fall.

Cavities & Decay Pockets

- Inspect the trunk or branches for peeling bark and hollow or decayed areas.
- Large decay pockets and decay where branches meet the trunk can indicate problems.
- Mushrooms or conks growing on or at the base of a tree are signs of decay-causing fungus.



A Common Misconception



Crown condition reflects health
NOT
structural soundness!

Crown condition indicates health not structural stability.



Assessing your mature trees:

All wounded trees do not become infected.

All infected trees do not become decayed.

All decayed trees do not fail.

Survival Mechanisms:

- **Defensive Dieback**
- **Compartmentalization**

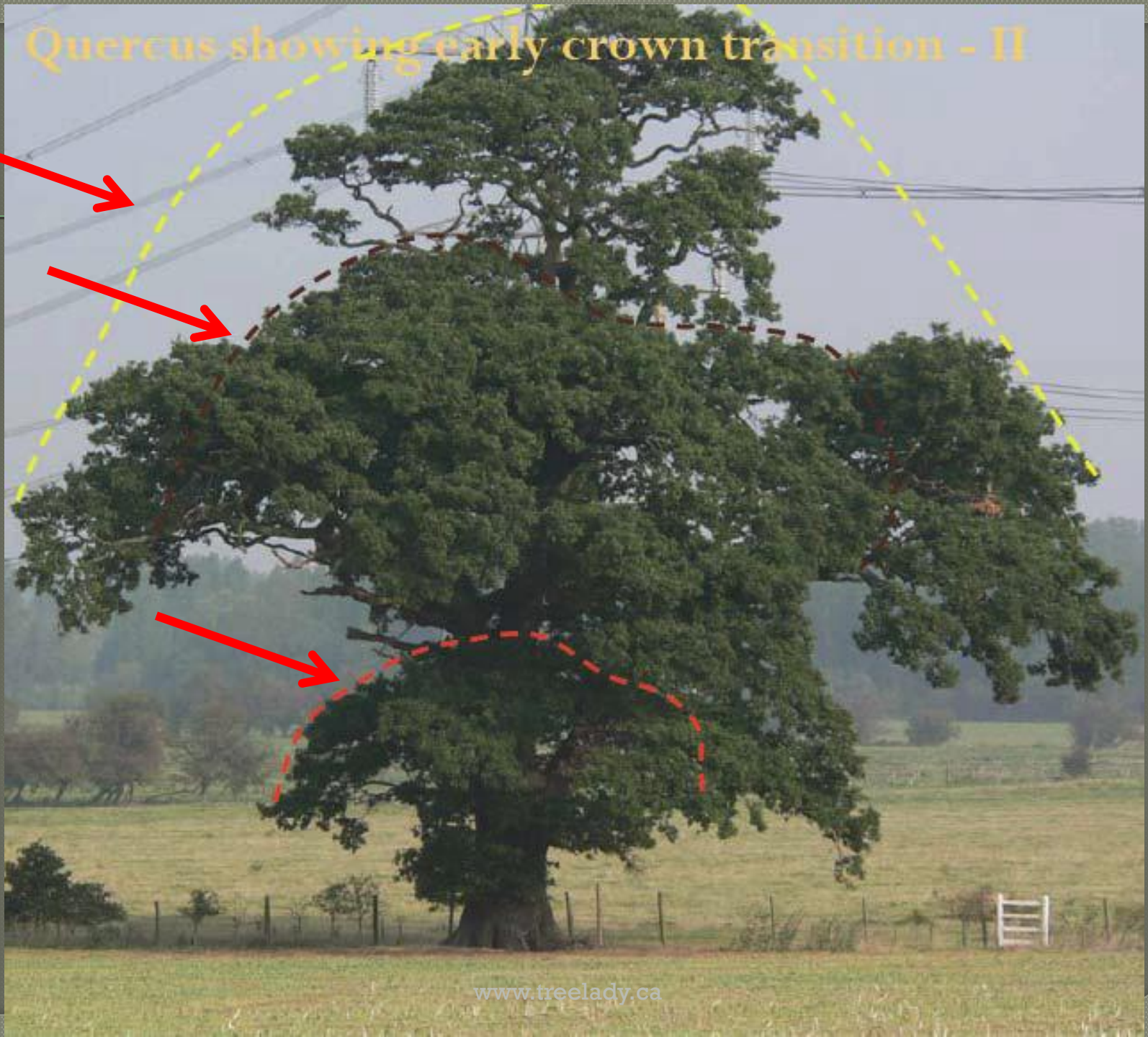


Compartmentalization extends
the amount of time a tree can
survive with defects and decay.

What you can do:

- ✓ Call a ISA Certified Arborist to examine your tree for recommended actions for long-term tree care and health. They may recommend thinning or crown-cleaning of the tree canopy.
- ✓ Inspect your trees regularly for warning signs, particularly during storm season.
- ✓ Look for leaning trees with cracked soil and exposed root balls.

Quercus showing early crown transition - II







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YES YOU CAN !



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We, also,
are able to
retain 1,100
year old trees
for future
generations
to enjoy!



Ranley Oak in England

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