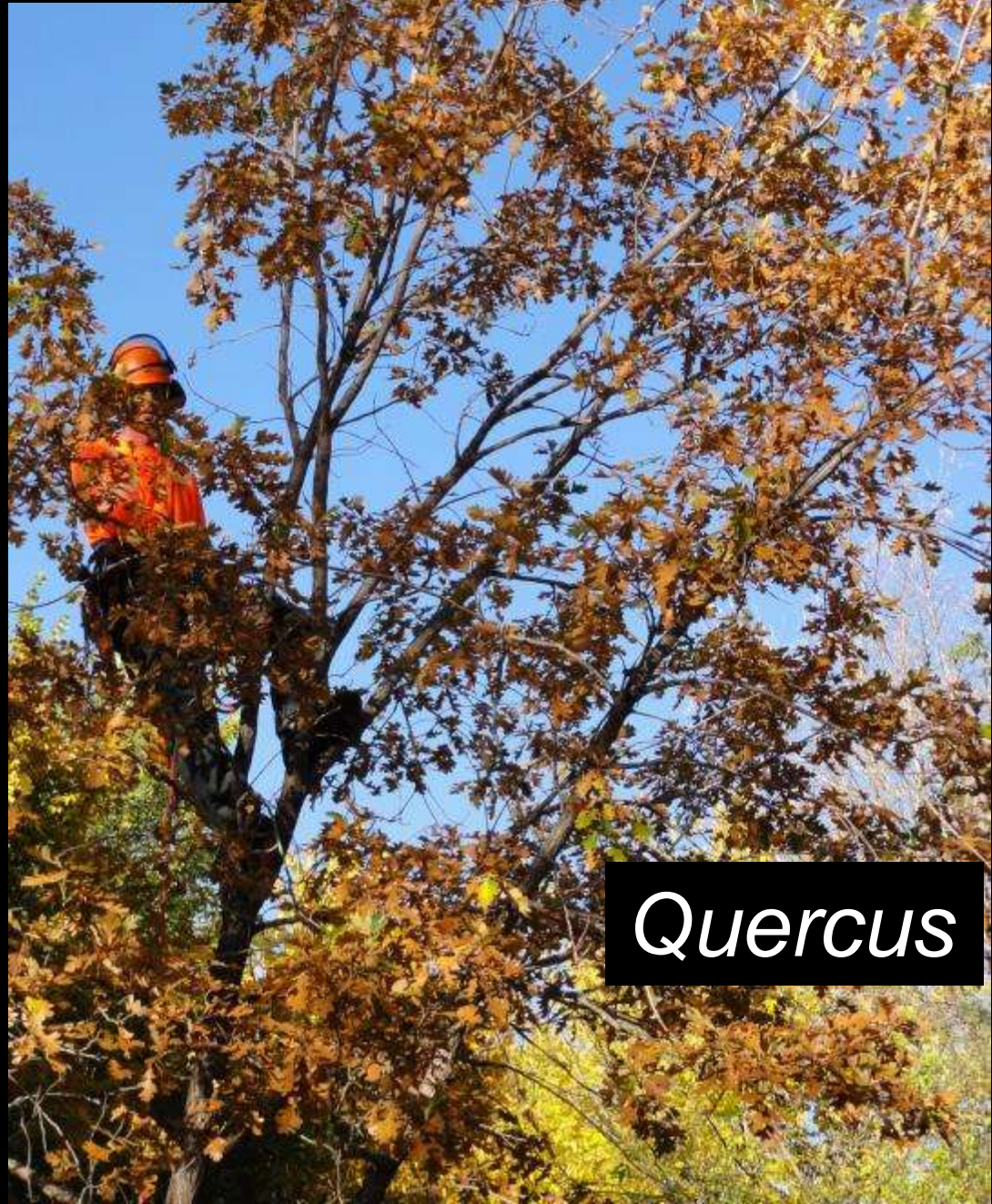


# Write pruning specification



*Quercus*









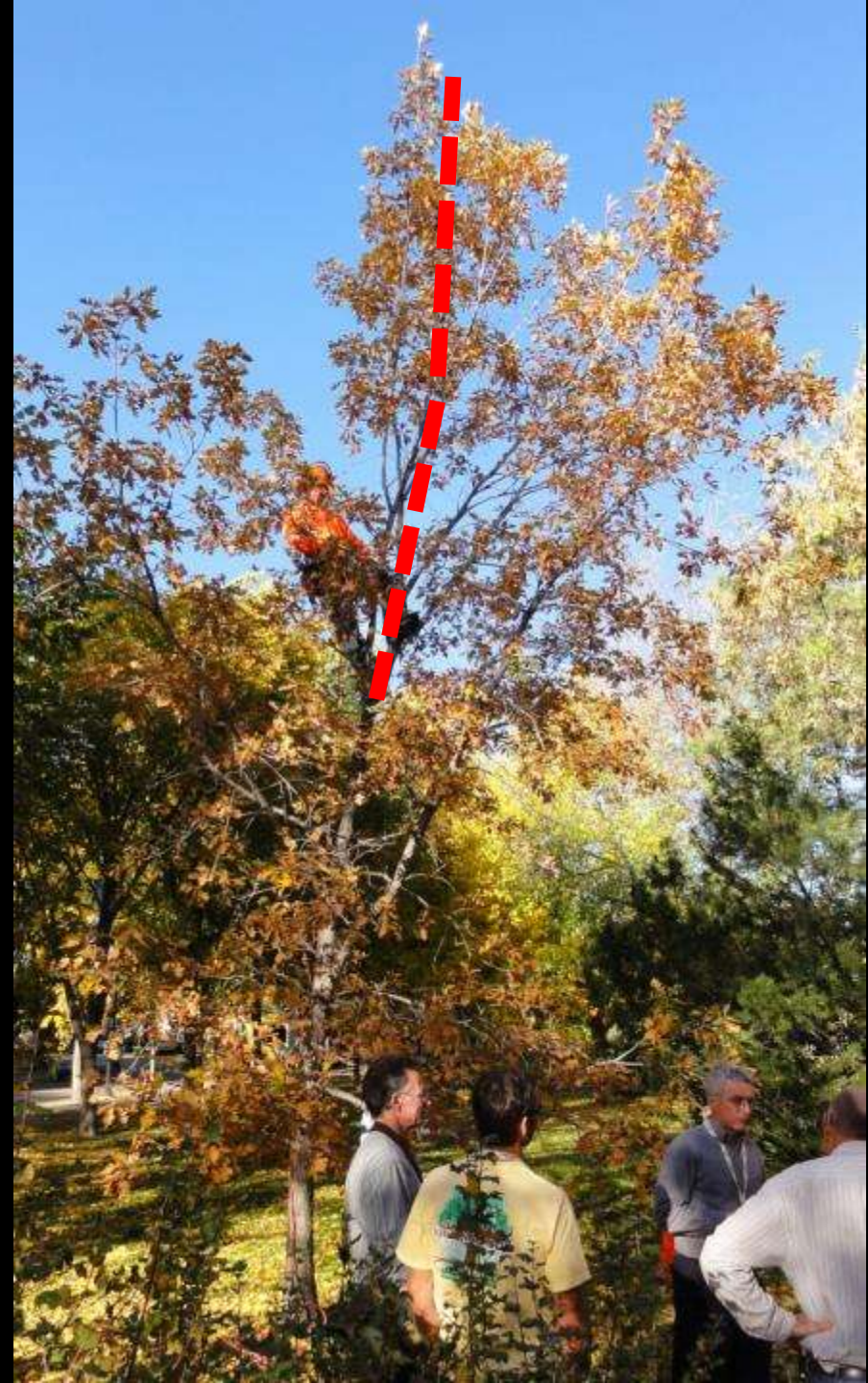
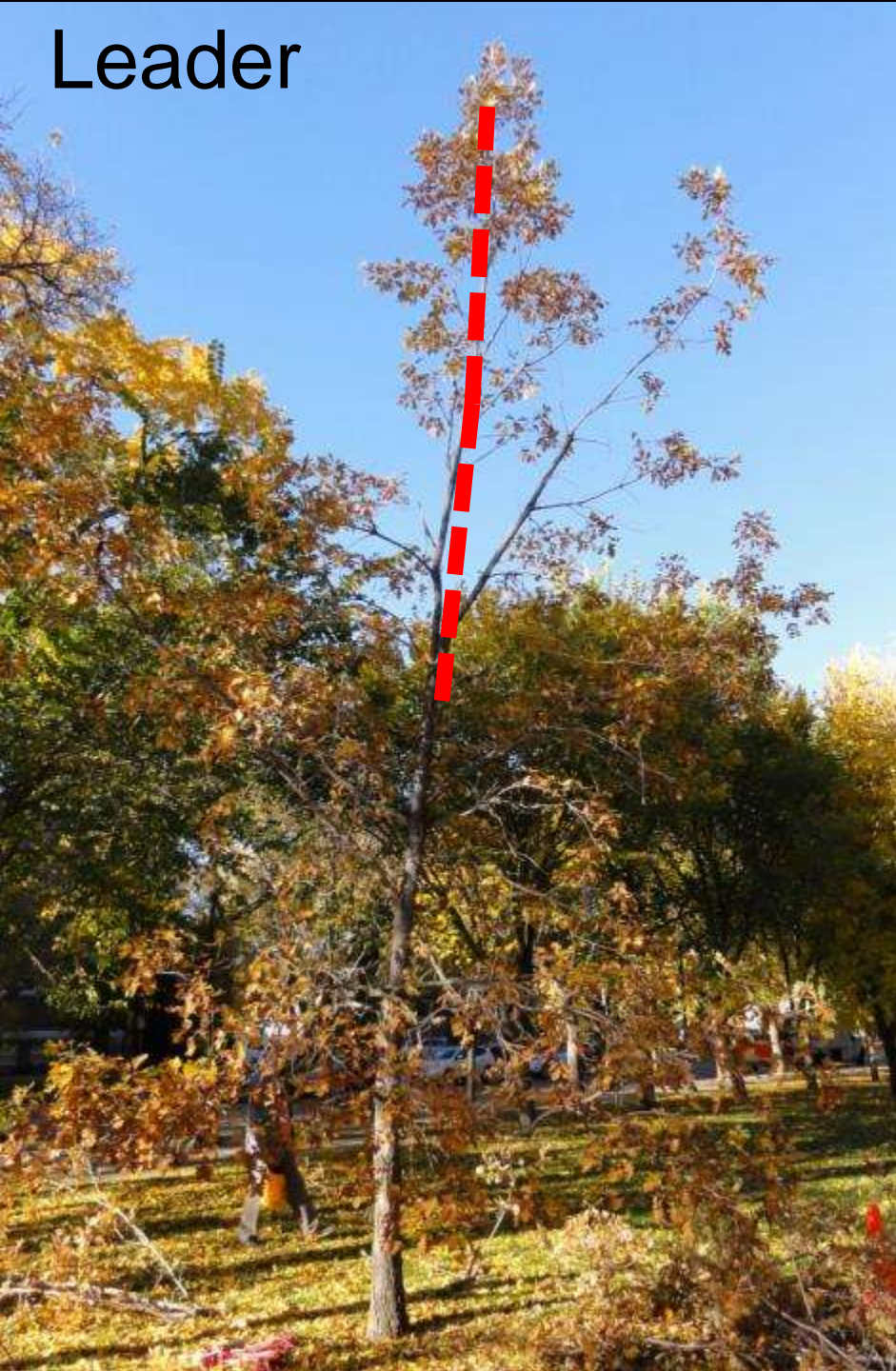
After

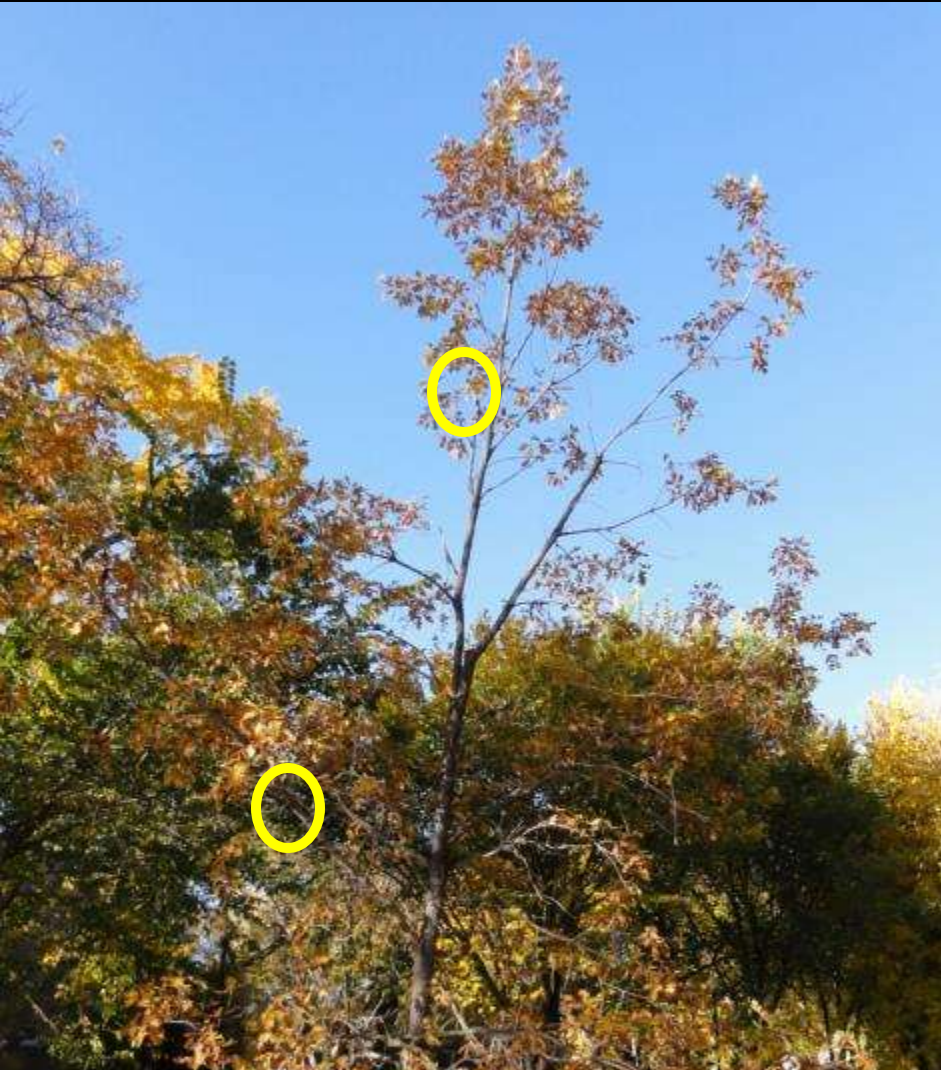


Before



Leader

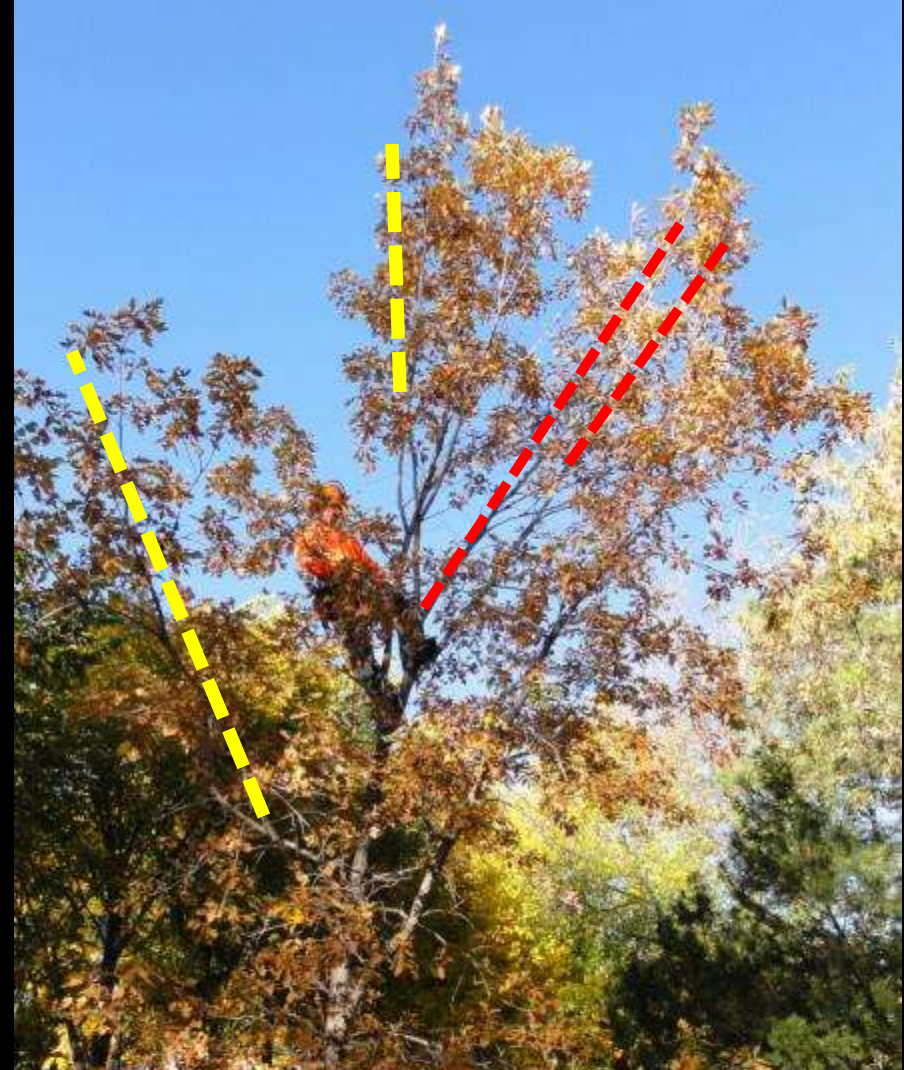
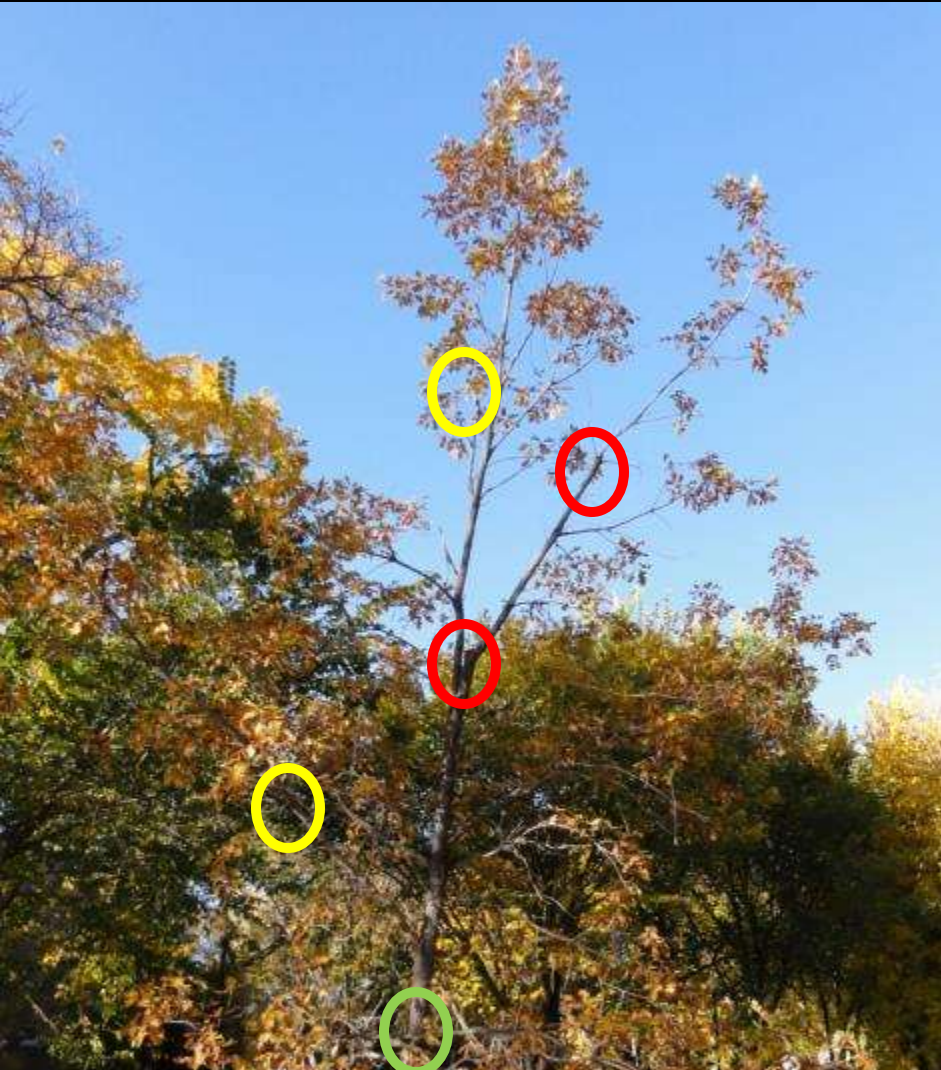




Two reduction (1-2")

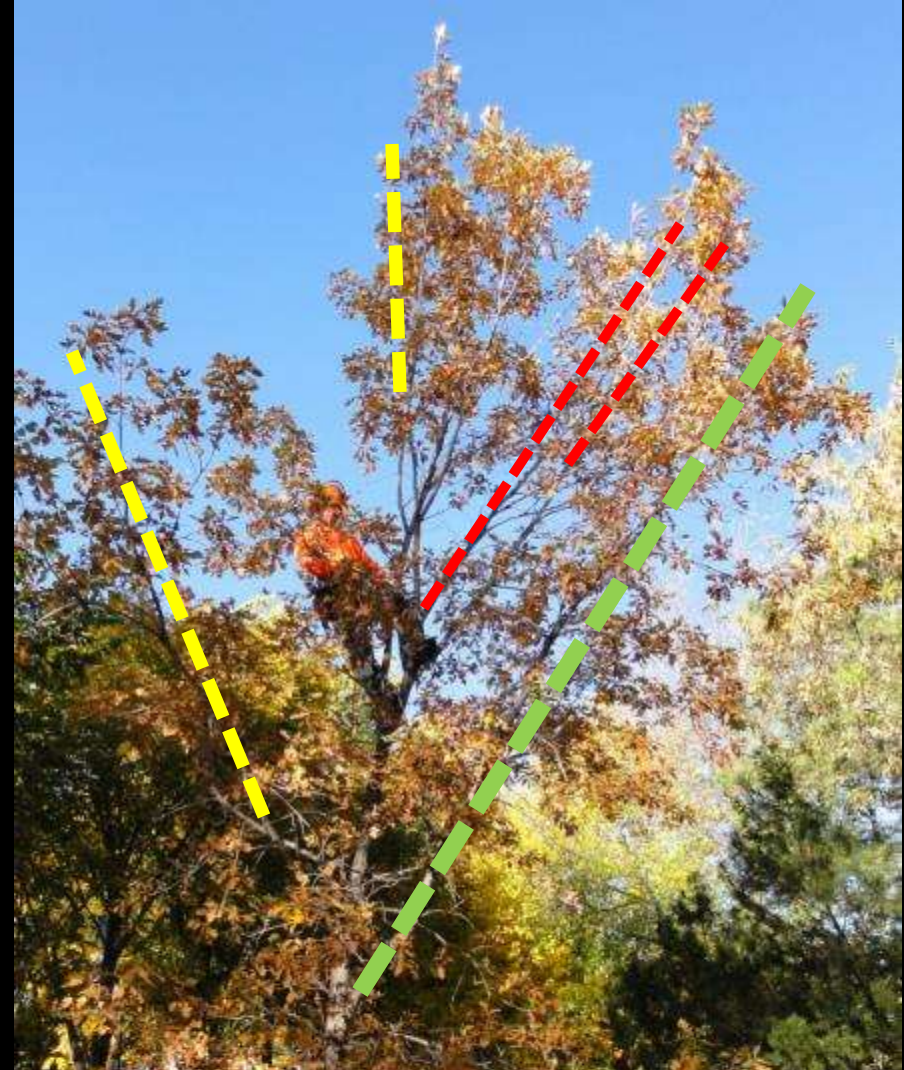
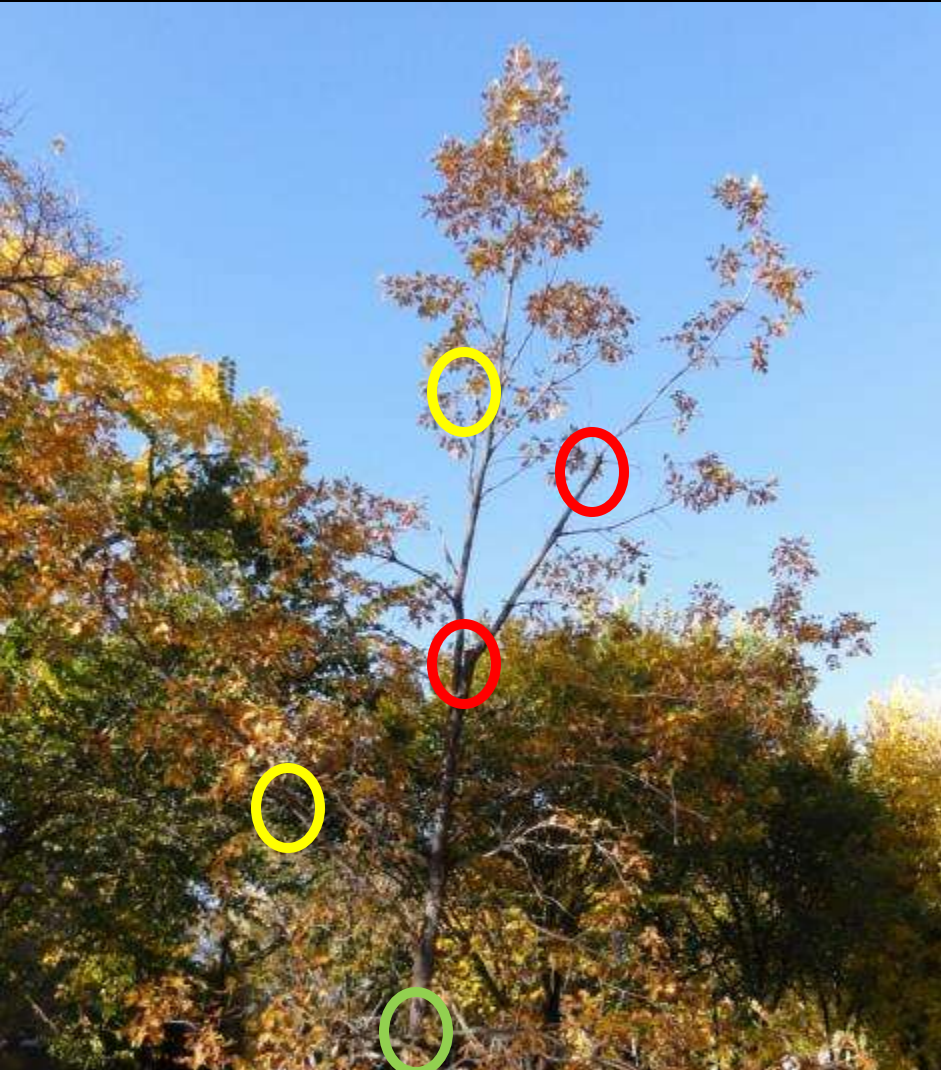






Two reduction (1-2")  
One double reduction (1-2")





Two reduction (1-2")  
One double reduction (1-2")  
One removal (2")

# Write pruning specification



Objective:  
Subordinate or  
remove all but one  
dominant stem

*Ulmus*

# Write pruning specification



*Ulmus*



# Write pruning specification

*Quercus*



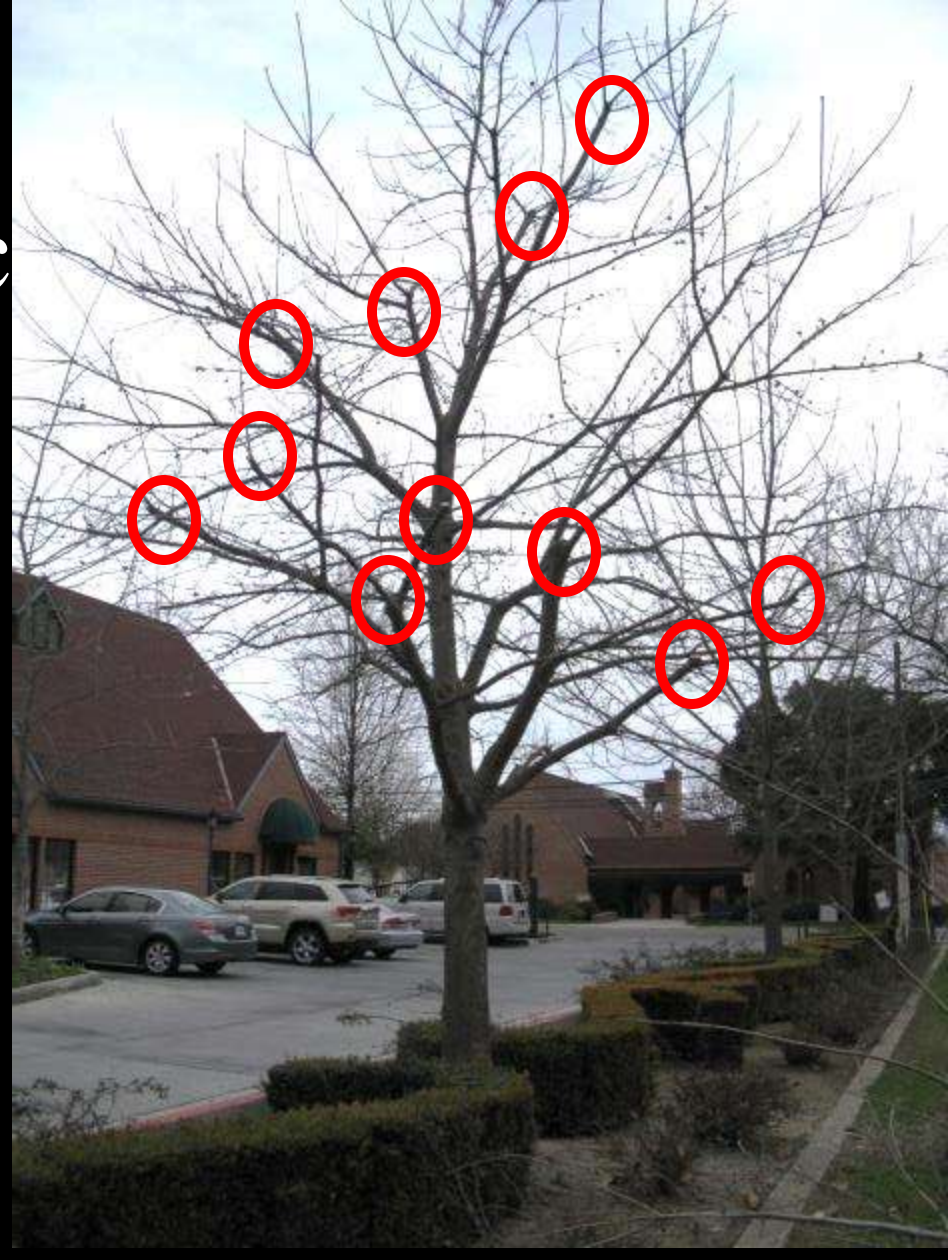
C



11 pruning cuts



C



11 pruning cuts

11 removed  
branches







1 year later



After pruning



1 year later



2 years later



# Write pruning specification







Closed pruning wound provides for a re-connection of roots to leader



Now there is a vascular connection to the leader which will help it dominant



Now there is a vascular connection to the leader which will help it dominant





# Write pruning specification



# Write pruning specification



**One year  
later**



**After**



**Debris**

One year  
later



Two years  
later



Three years  
later



Two years  
later



**Three years  
later**



**Four years  
later**



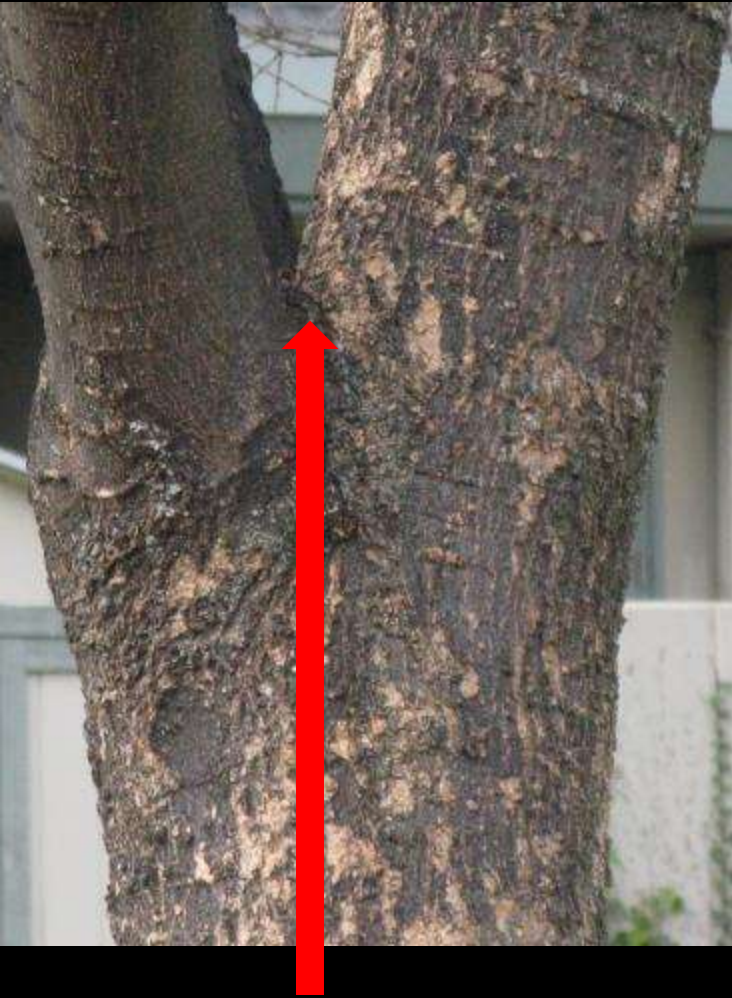
# 4 years of growth



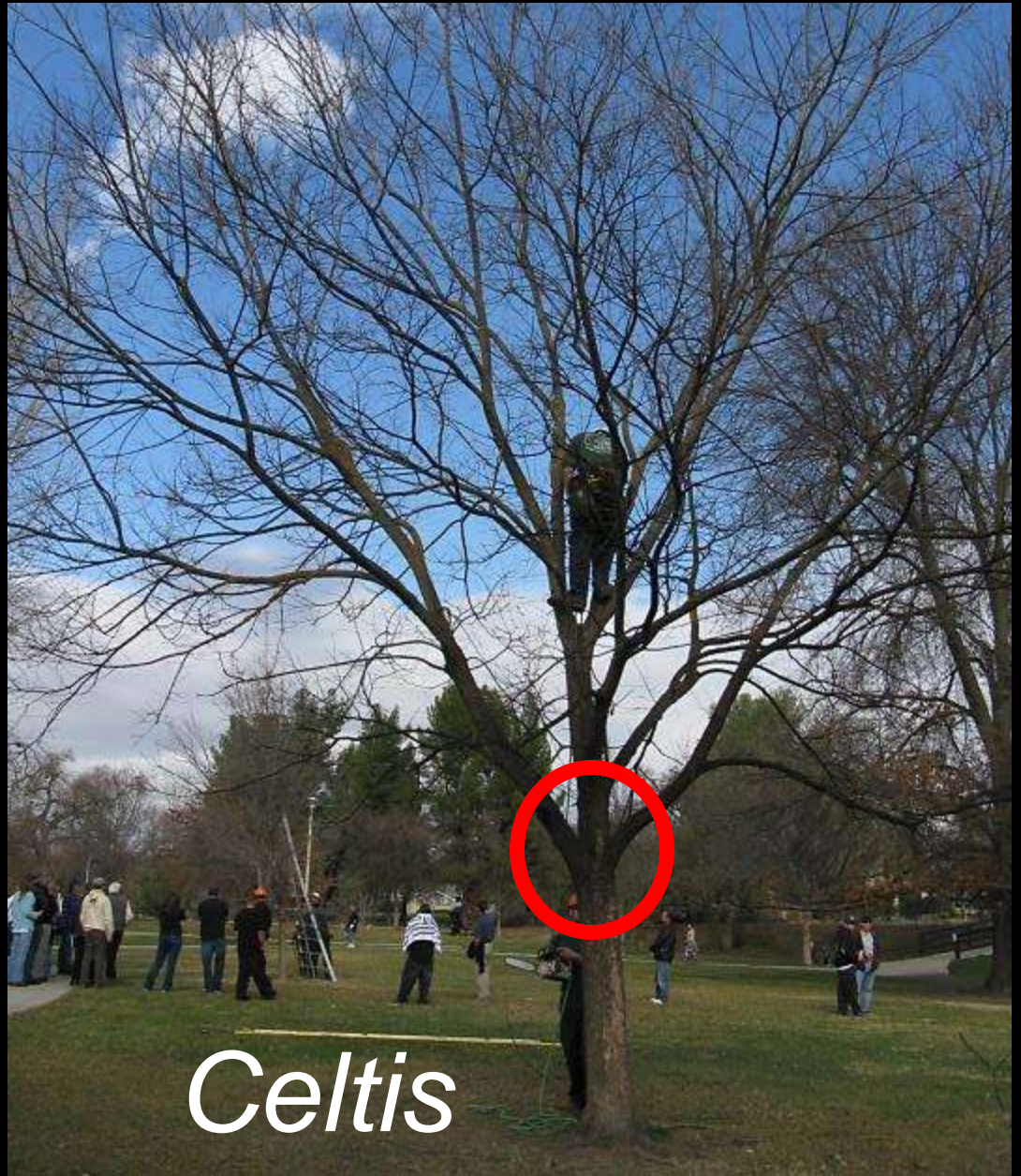
11:50



# Write pruning specification



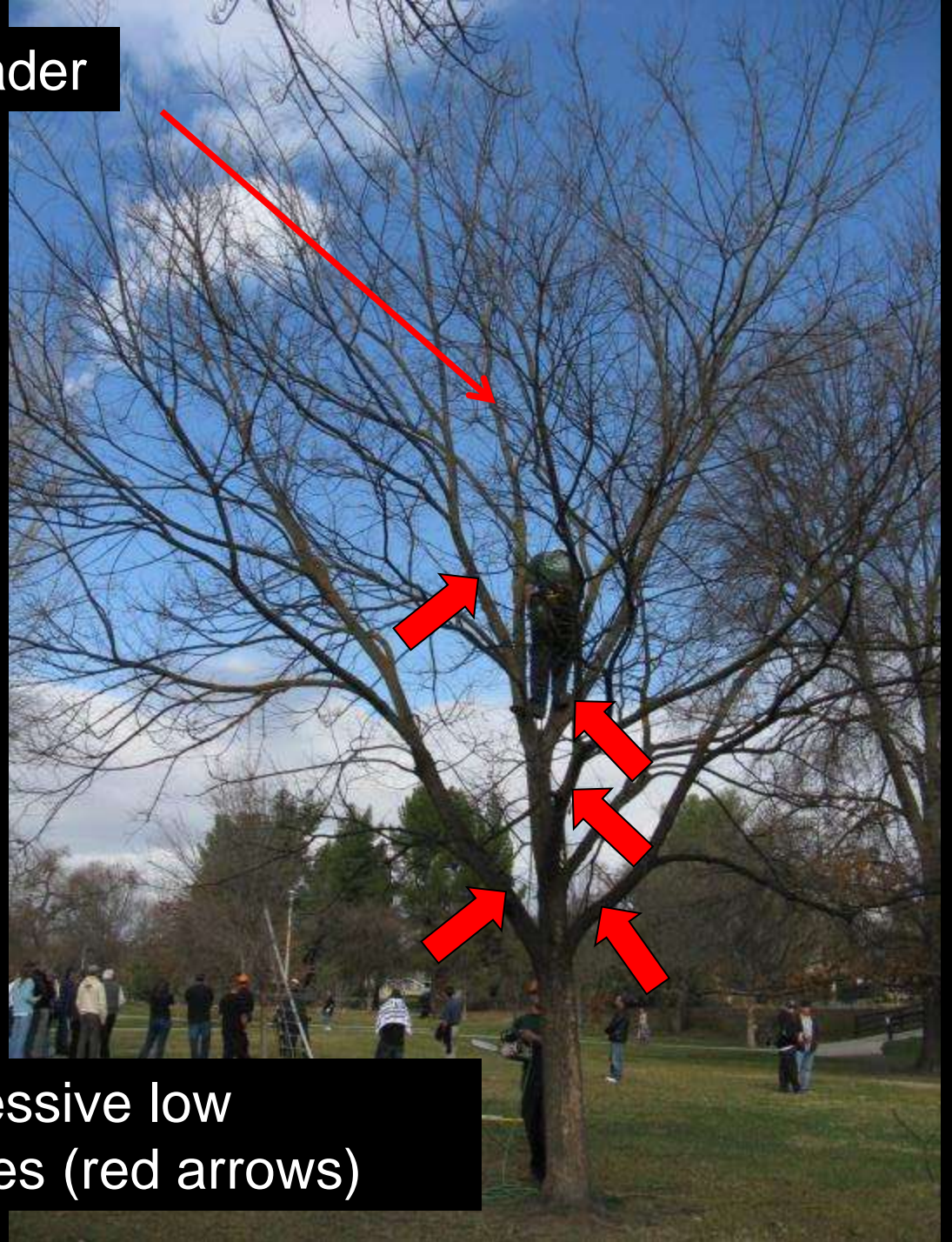
Inclusion



*Celtis*

*Celtis*

Leader



5 aggressive low  
branches (red arrows)

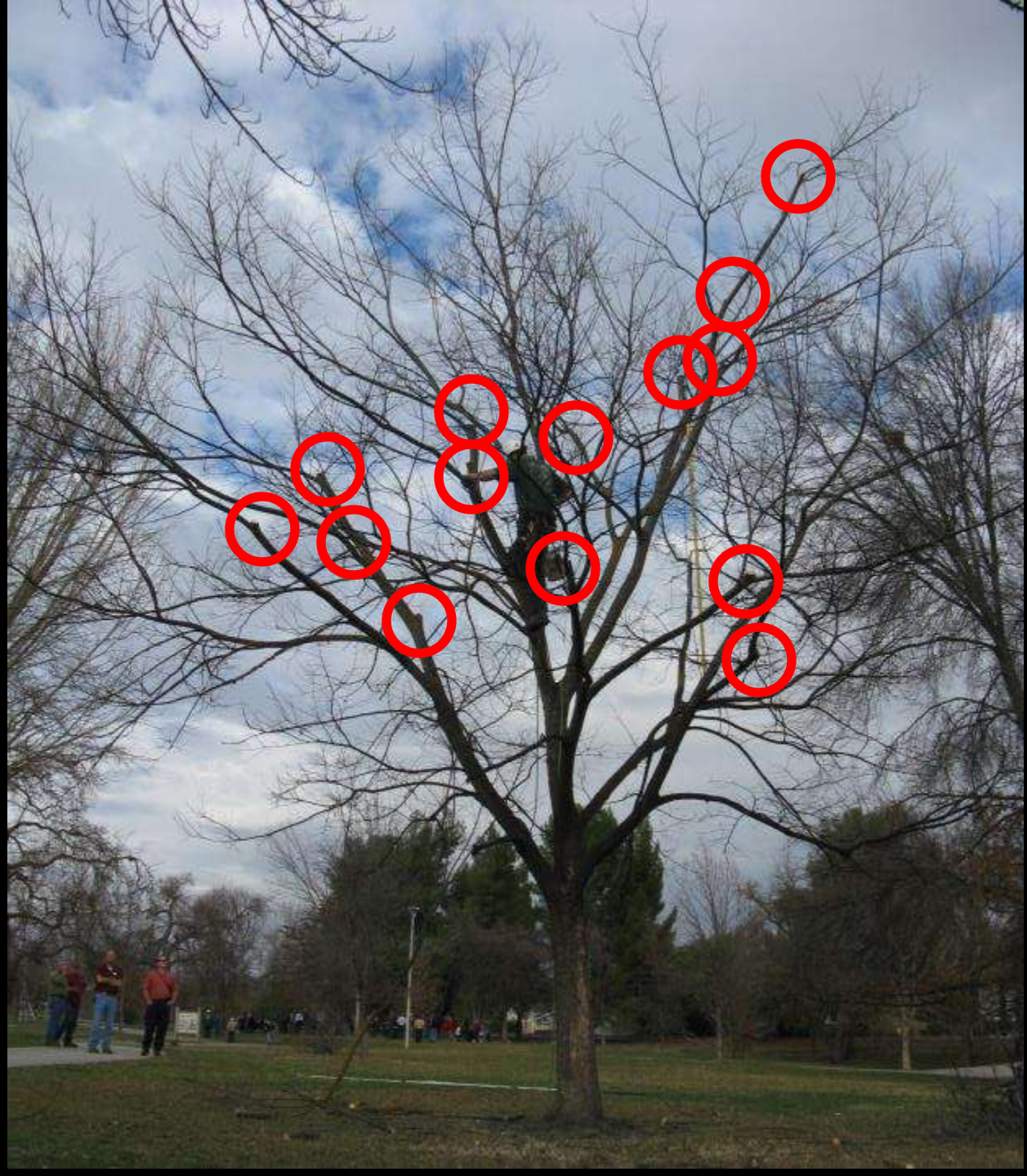
# After pruning

Small leader:  
lower trunk  
diameter ratio  
means a large  
pruning dose is  
needed

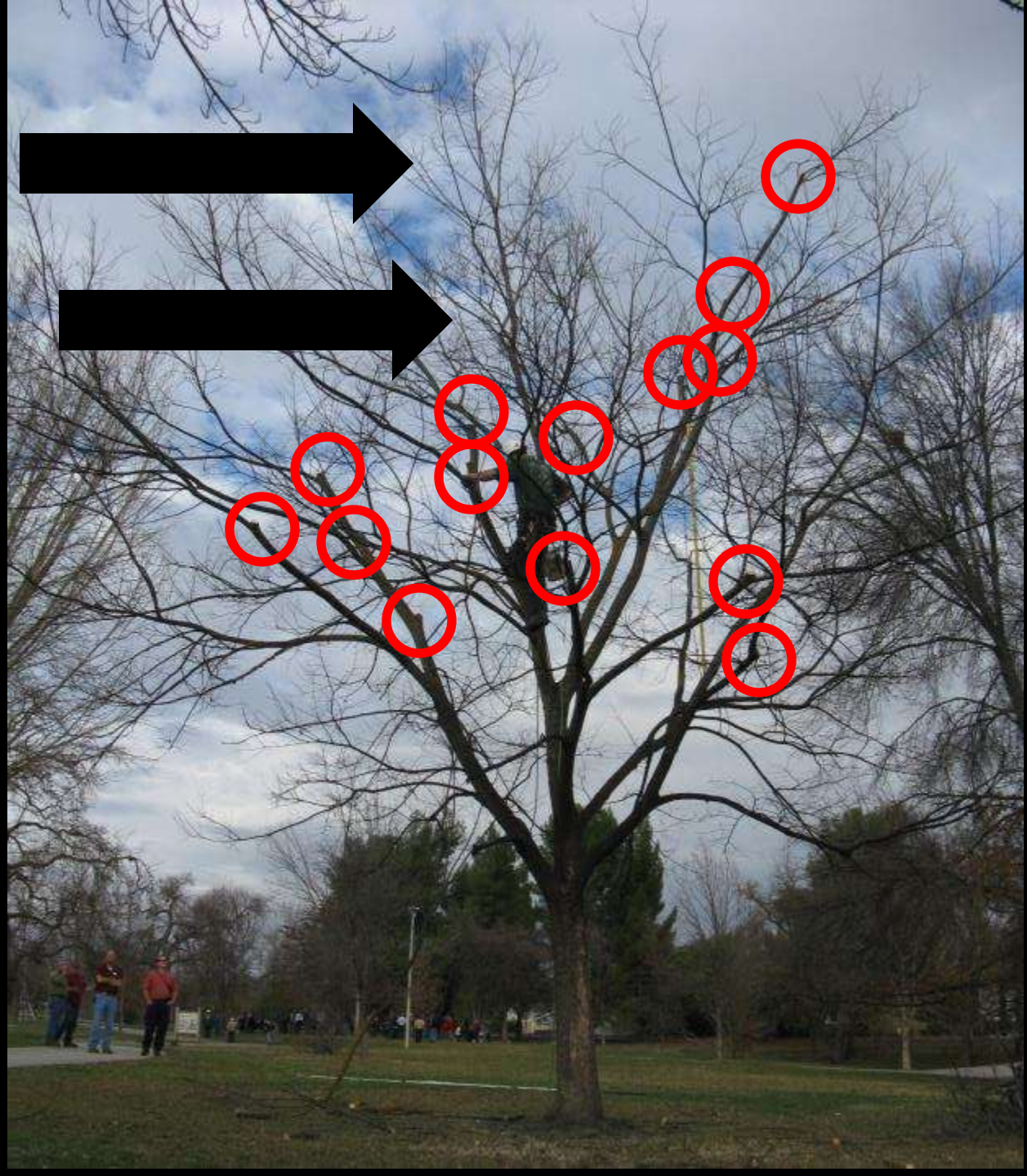
Leader



# Pruning cuts



Leader and  
branches  
bathed in  
sunlight





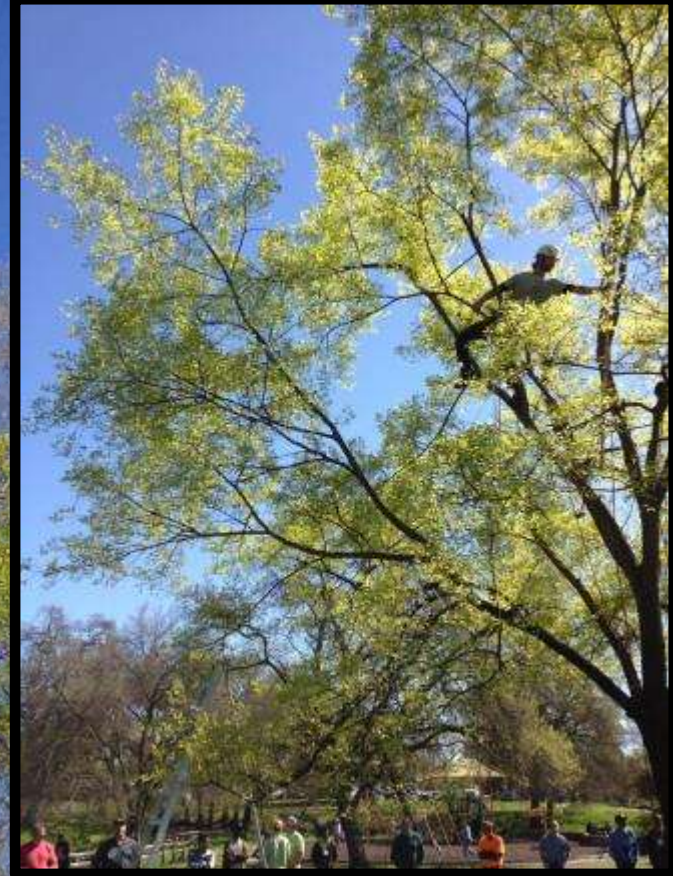
Upright stems  
shading the  
leader removed



*One year later*









*Two years later*

# Two year response



# Write pruning specification 1 more slide



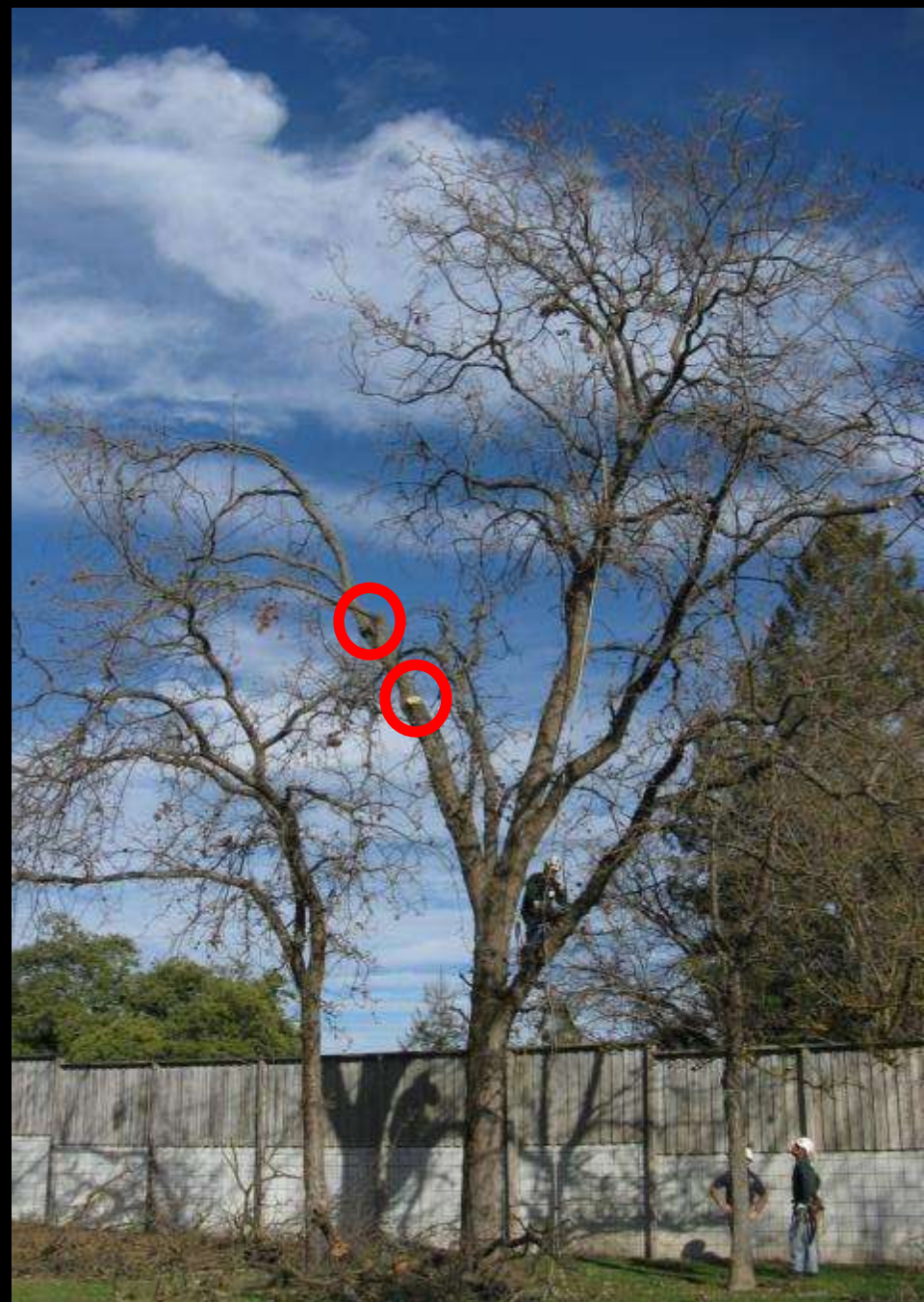
# Write pruning specification



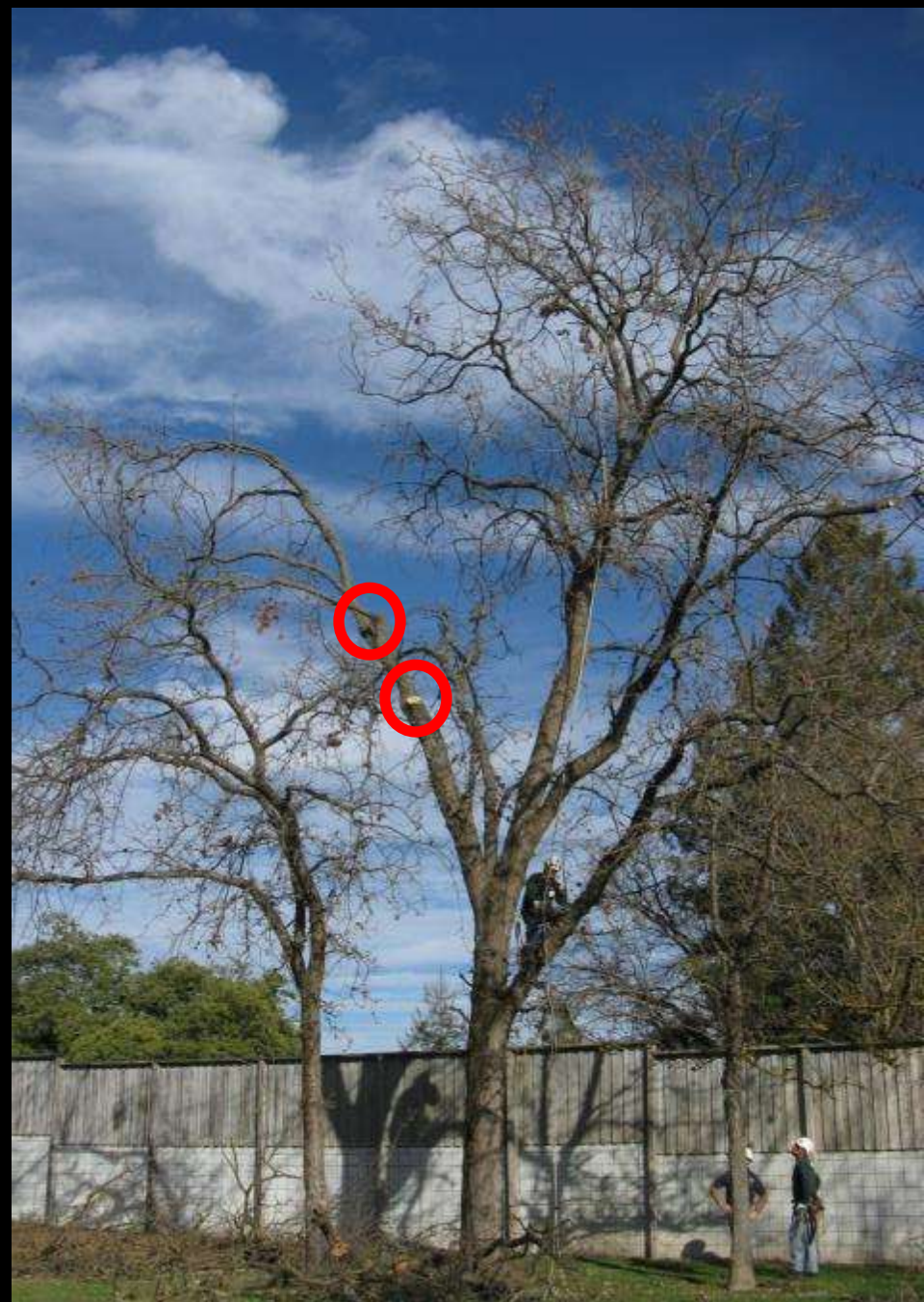
# Write pruning specification













Write a pruning  
specification





After pruning



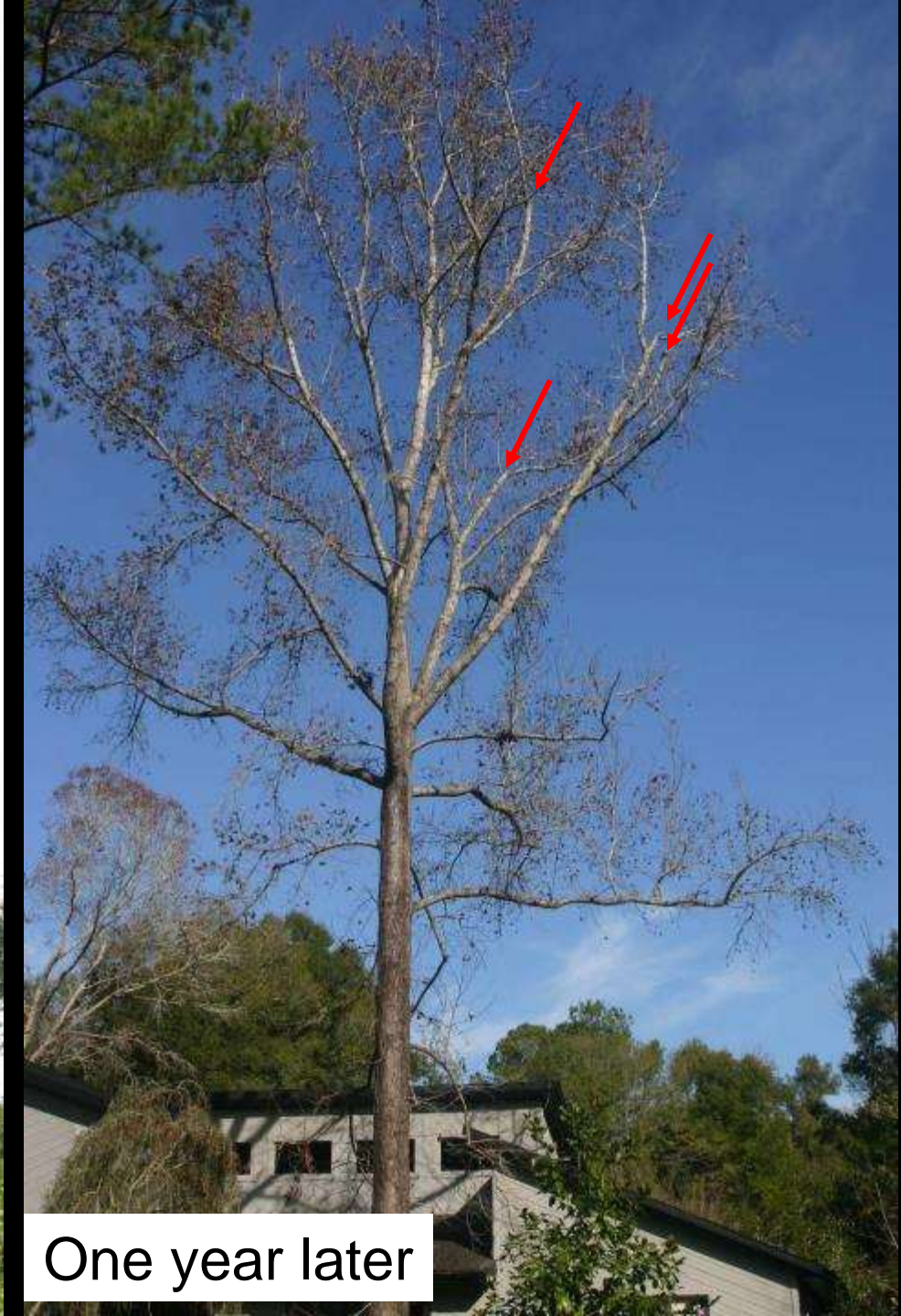
Before pruning

Four 3.5 inch stems removed

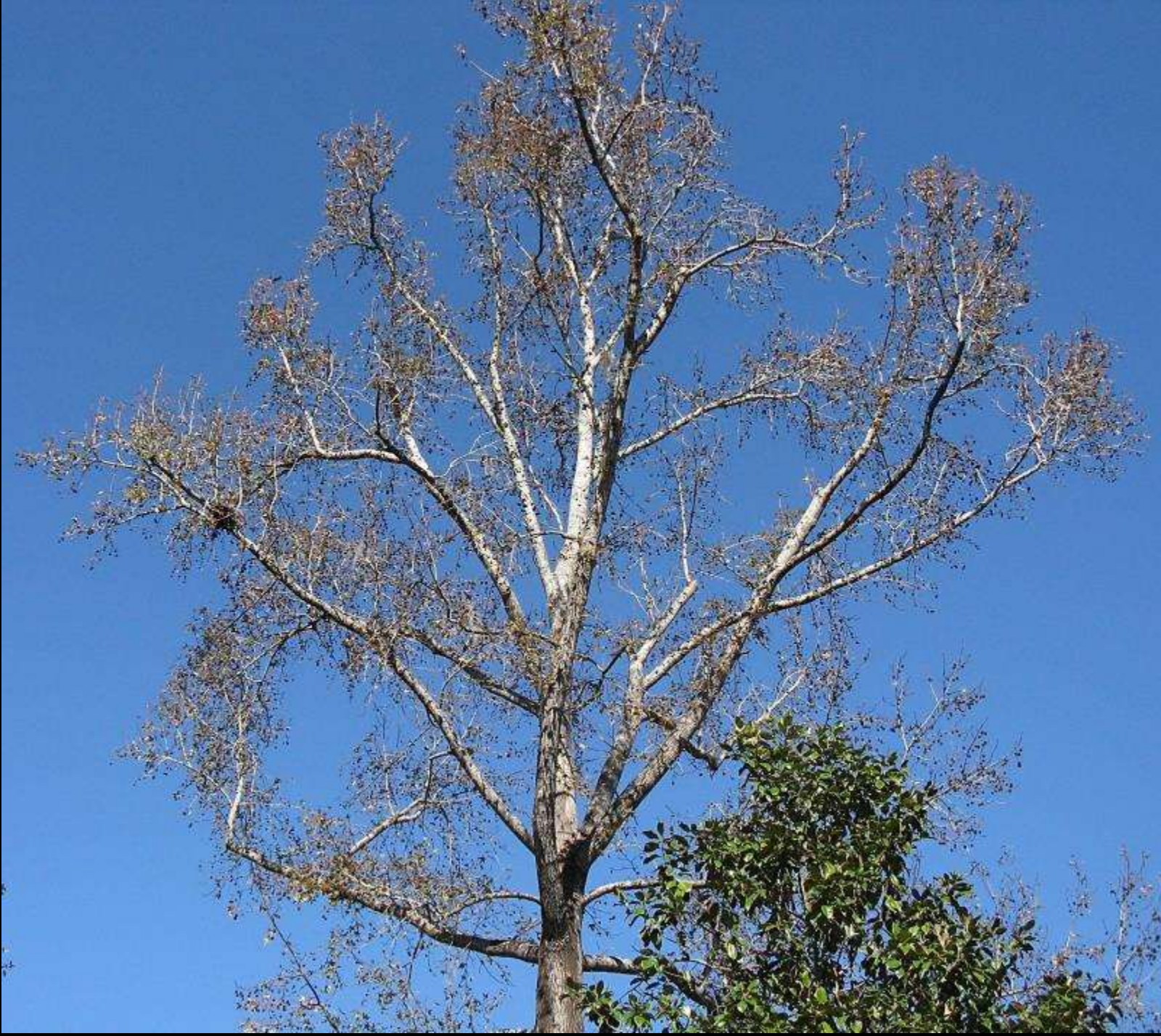




After pruning



One year later



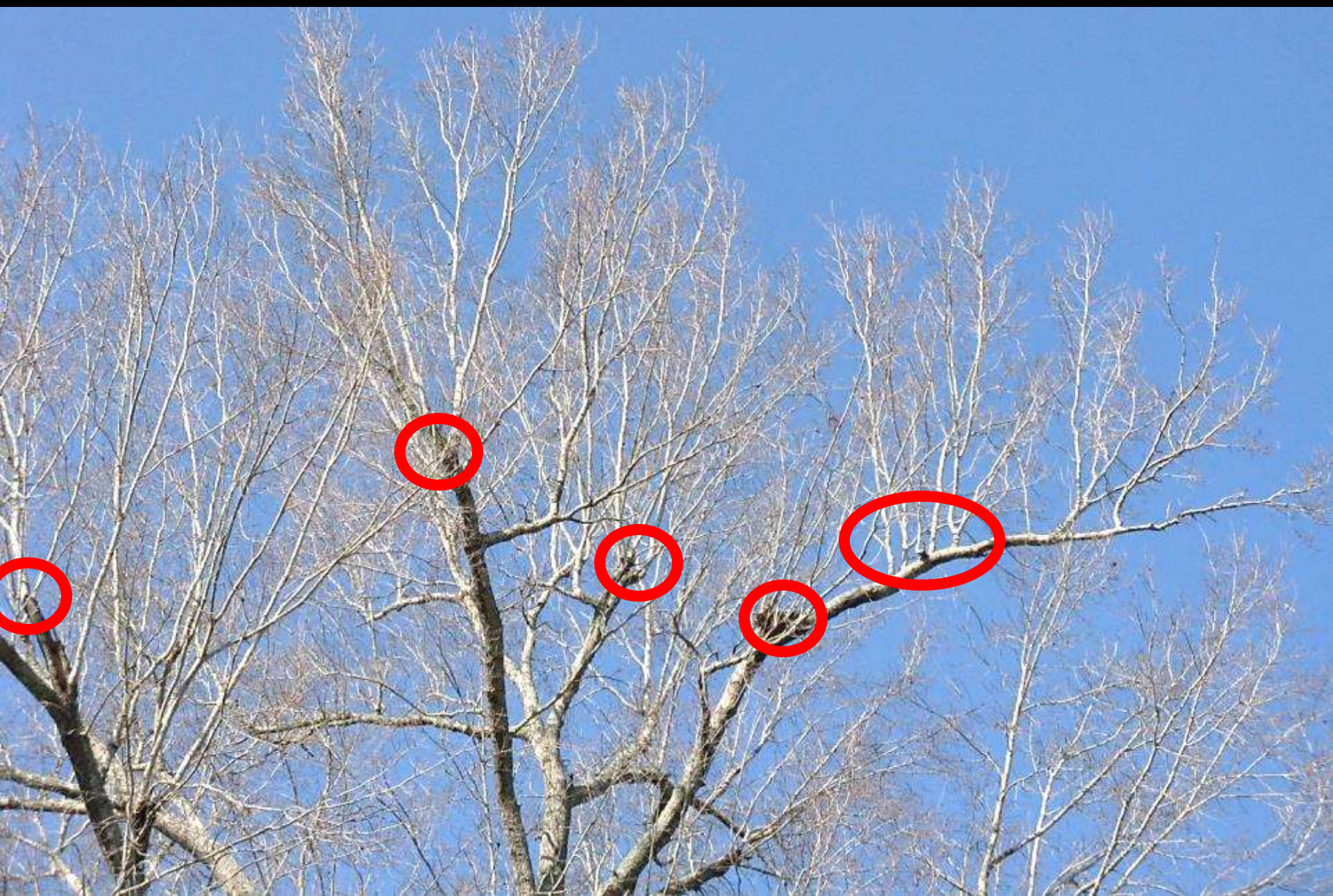


Objective:  
Subordinate all  
but one  
dominant sprout  
on each broken  
limb or branch  
cluster



# Write pruning specification



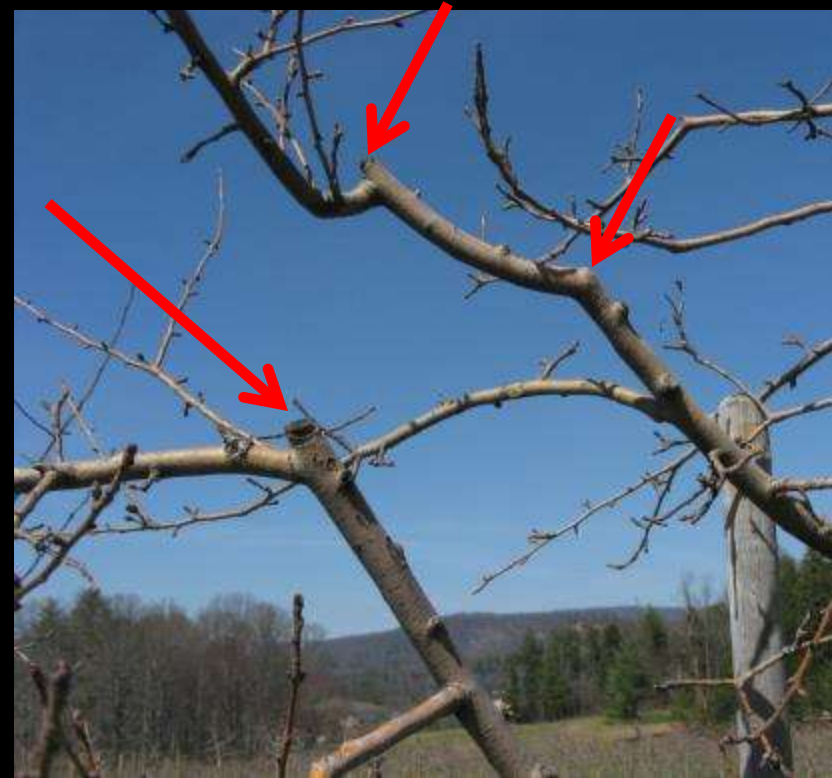


# More specification writing

---

Objective: Reduce height and spread of crown

# Describe what was done here



*Malus*  
orchard

Describe  
what was  
done here





Reduce crown height using 40-50 reduction cuts (3-4").

Removal cuts do not reduce the crown

Describe what was done here



# Question

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Crown thinning-is it a useful method of pruning trees?



before



4 months



after



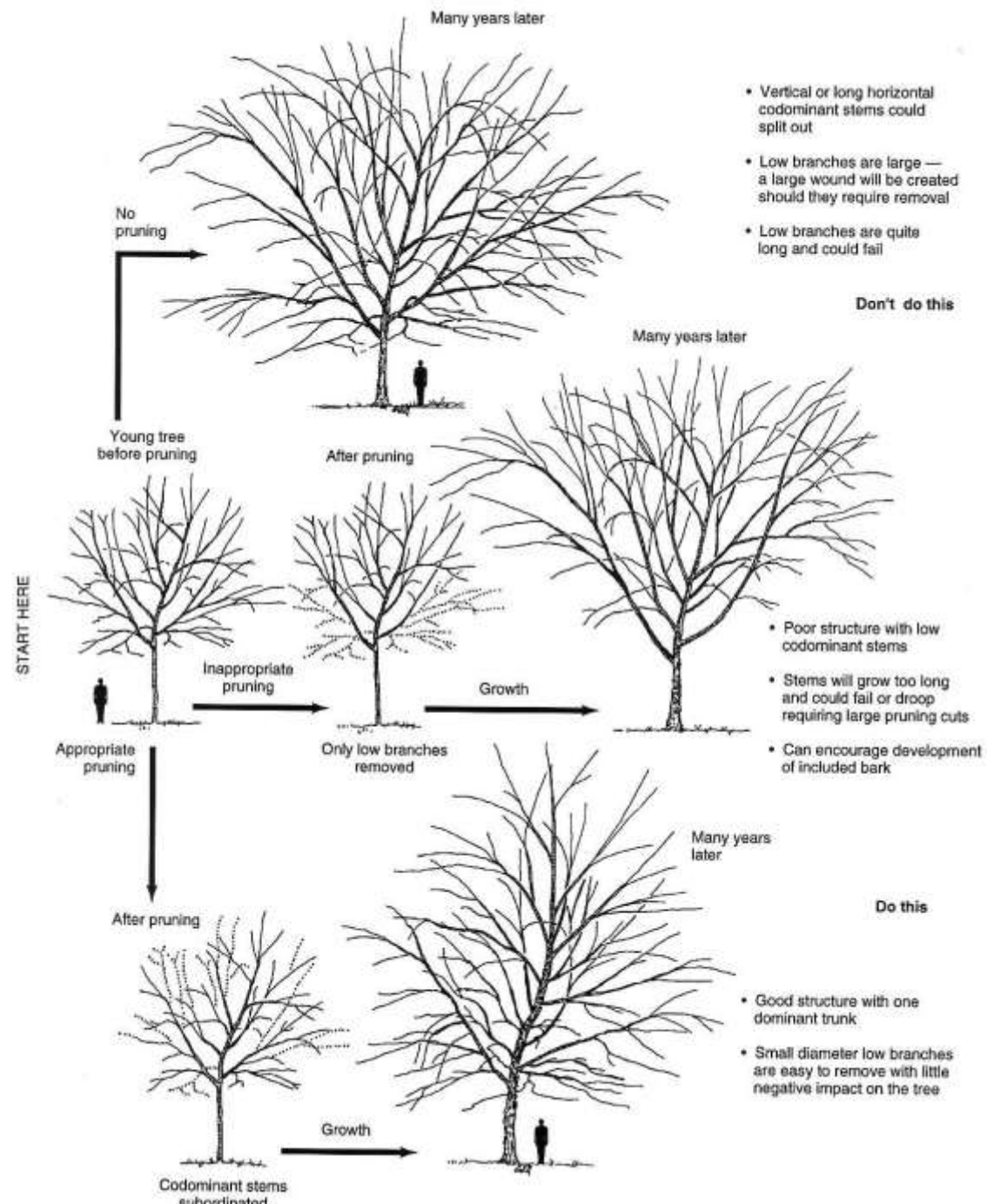
12 months



# Summary of today

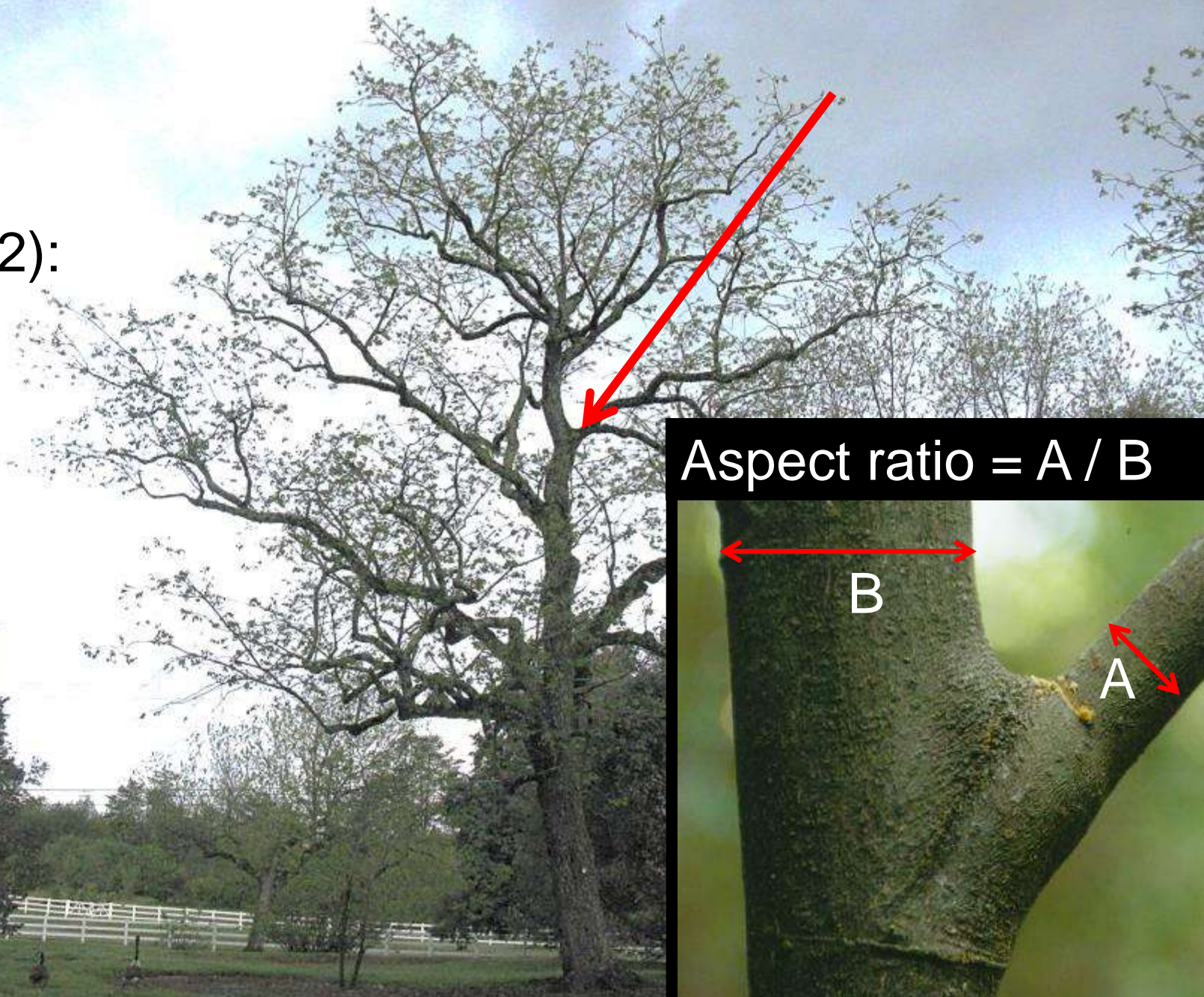
---

# Typical management world-wide

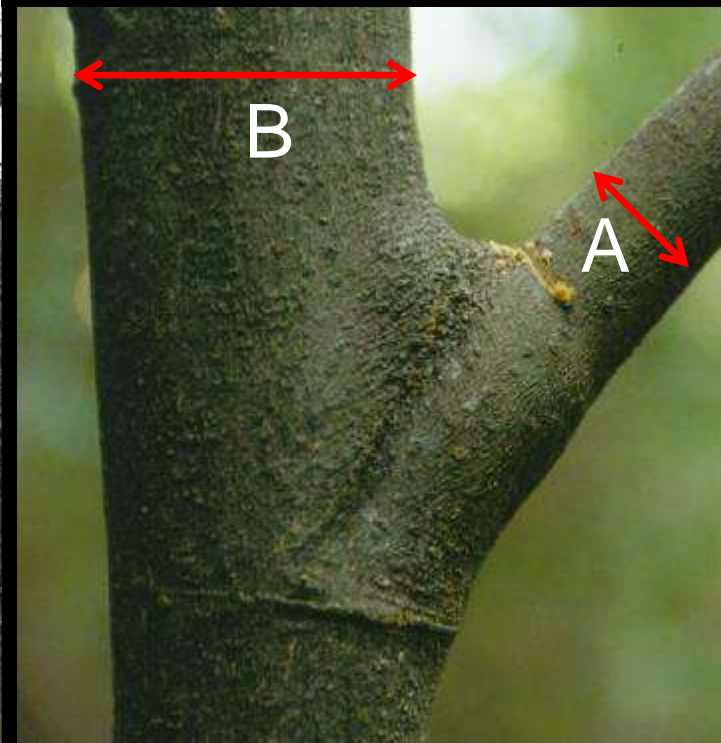


# Better management

Small  
aspect  
ratio (1/2):  
strong  
union



Aspect ratio =  $A / B$



**Urban forest trees:  
crown raised in  
typical fashion**

Long branches

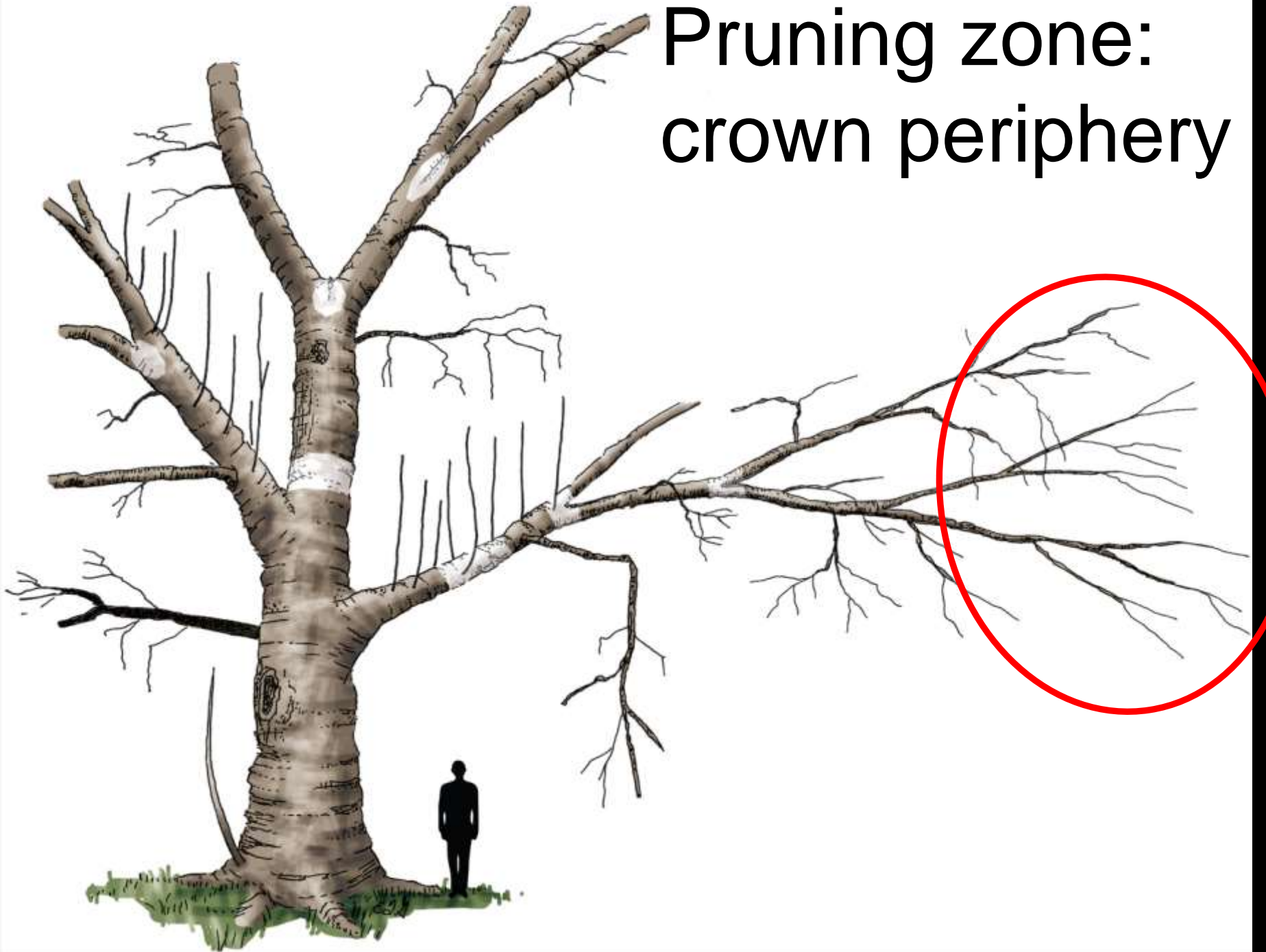
Wide crown

Dense crown

**Resting on nothing**



Pruning zone:  
crown periphery



# Specification outline – whether talking to crew or customer

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- Objective:
- Cut type:
- Cut location:
- Cut number/diameter: