

Pruning Trees- Cabling & Bracing Arboriculture 101

By: Charlie Iselin

Commercial Tree Care vs. Public Tree Care

- Satisfy the customer
- More attention to details
- More ornamental care
- Increased amount of crown cleaning requests
- More requests for “shaping”
- Requests for “view” pruning
- Increase in IPM and PHC
- Safety pruning: play areas, roofs and other structures
- Insurance company requests
- Safety & public health
- Lots of interface with the public (more criticism and push back)
- Work with utility contractors (Eversource & United Illuminating)
- Right of way maintenance
- Park and Cemetery tree maintenance
- Basic pruning
- Very little IPM or PHC: EAB & DED
- Limited funds and budgets
- Limited resources
- Use of contractors

Municipal Pruning Punch List

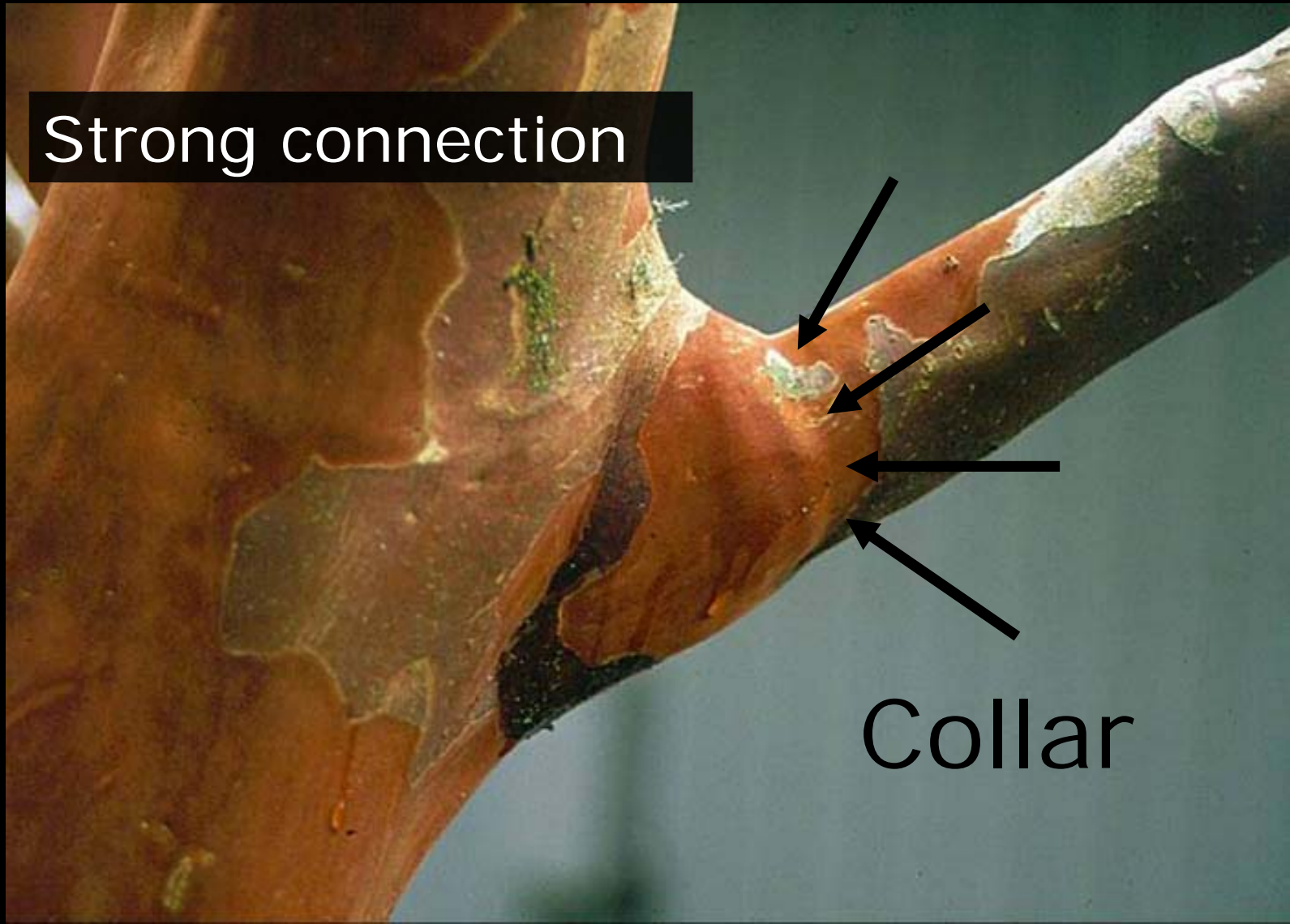
- **Hangers- Broken, hanging branches typically found in the crown of the tree**
- **Deadwood- dead limbs and branches still attached to the tree**
- **Sight/signal clearance- clearance of traffic signals**
- **Sign clearance- clearance of stop signs and other street signage**
- **Elevation: sidewalks- 12 feet, roadway- 15 feet- safety precaution so pedestrians and vehicles have a clear lane of travel**
- **Stubs- partially remaining branches that the tree expends energy to remove**
- **Sucker growth- growth typically found at the base of the tree that could interfere with sight lines and passage**
- **House/roof clearance- tree branches are hitting the structures and could cause damage**
- **Reduction (specified by City Forester)- reducing length of branches or limbs to reduce breakage in storm events**
- **Thinning (specified by City Forester)- reducing foliar and branch weight on limbs to reduce breakage in storm events**

Objective: Reduce structural issues that cause tree failure

- **Codominant stems:**
stems of equal size originating from the same point on the tree
- **Included bark:**
bark pinched between two stems, indicating a weak union
- **Unbalanced canopy:**
one side much heavier, or most weight at the tips of branches
- **Large low branches**



Strong connection



Collar

Weak Structure:
Codominant stems &
bark inclusions



Codominant stems often cause branch failure in storms





Unbalanced Canopy

Lions-tailing: trees with foliage concentrated at the tips of branches because inner branches were removed. The trees are more susceptible to hurricane damage and difficult to restore

Big cuts can result in decay and cracks.





Low and big cuts
can be avoided
with early pruning.



Structural Pruning Strategies:

1. Develop or maintain a dominant leader
2. Identify lowest branch in the permanent canopy
3. Prevent branches below the permanent canopy from growing too large
4. Space main branches along dominant trunk
5. Keep all branches less than $\frac{1}{2}$ the trunk diameter
6. Suppress growth on branches with included bark

Trees require about 25 years of training to develop strong structure.