



Building with Trees



GreenPro 2009

March 16, 2009

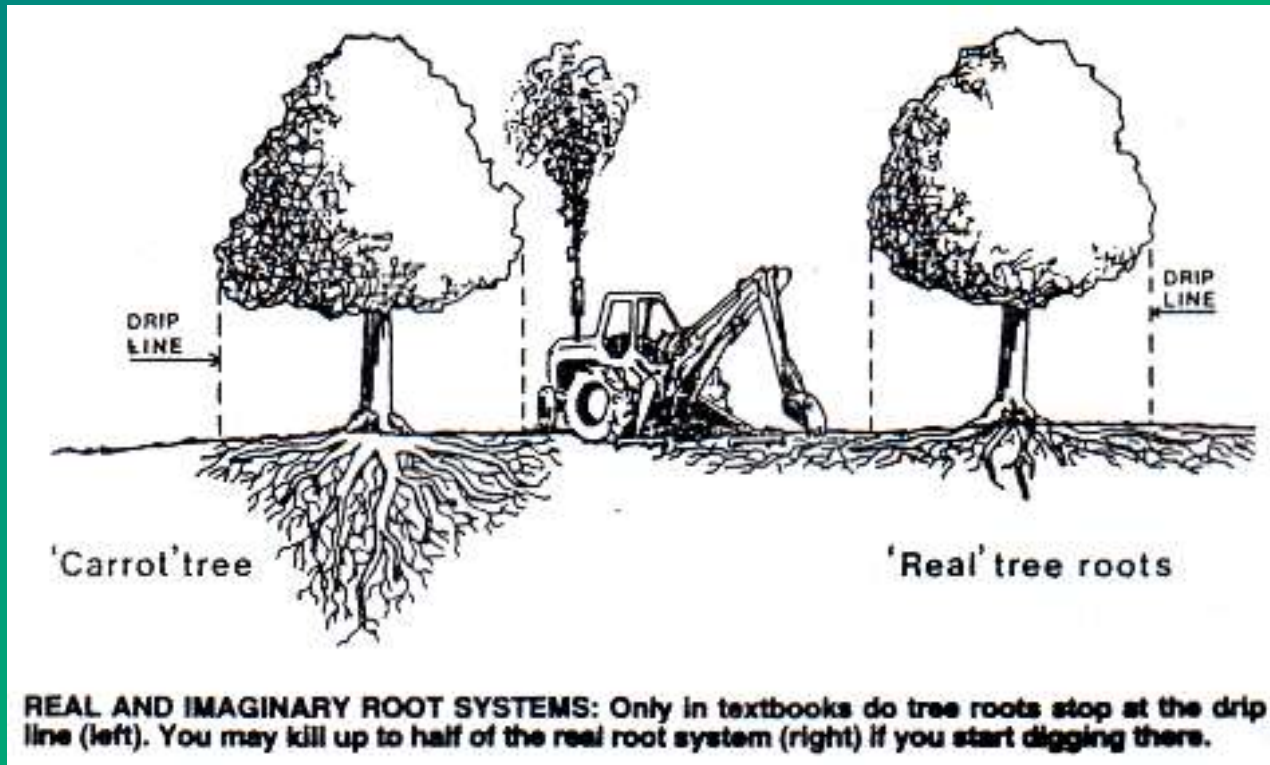
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Tree Roots Fact or Fiction

- #1: Tree roots only exist under the drip-line of the branches
- #2: Roots grow deep into the soil, as a mirror image of the top
- #3 Roots are woody and tough
- #4 Damage to tree roots will cause the tree to die immediately





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Tree Biology 101



- Trees are alive
- They carry out life sustaining functions
- Plants create their own food
- How a tree grows
 - A new tree covers the old one each year
 - Is the tree healthy enough to retain



Preservation VS Retention

- The process of selecting certain trees for protection and removing trees that cannot or should not be preserved
- Retention is not the same. The trees are typically not properly protected and their survivability is low





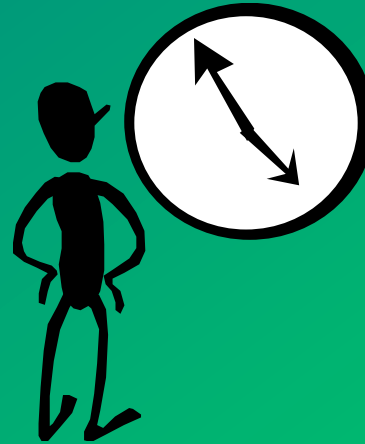
Why Save Trees

- Established by local Codes
- Commitment of the developer
- Increase attractiveness of project
- Monetary value
- Marketability
- Sell lots quickly and for higher price



Developer Concerns

- Financial
- Time
- Marketing
- Relationship with the Community





Community Concerns

- Quality of Life
- Cost of Services



Process

- Planning Phase
- Design Phase
- Pre-construction Phase
- Construction Phase
- Post Construction Phase

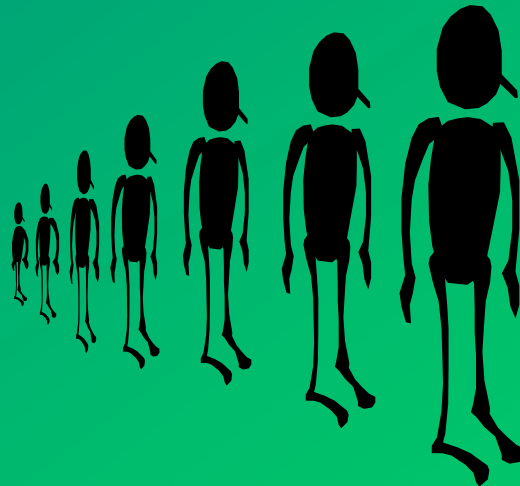




Planning Phase

Assemble the Team

- Owner
- Builder
- Construction Supt.
- Project Arborist
- Architect
- Engineer
- Landscape Architect
- Planner





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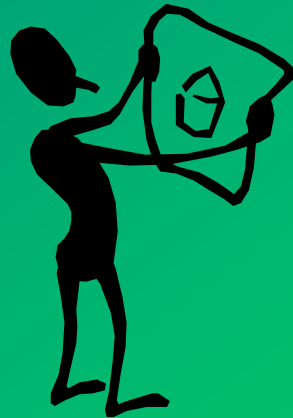




Design Phase

Understand the Site

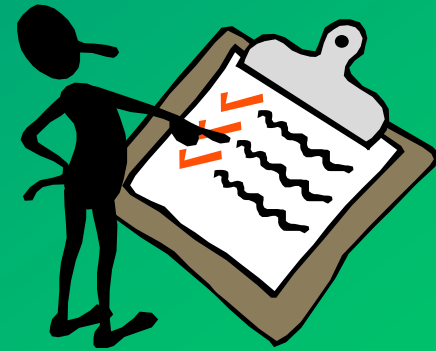
- Vegetation
- Topography
- Soils
- Wetlands
- Floodplains
- Surveys
- Size and layout of project
- Construction areas
- Grade changes
- Storage
- Debris





Process

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Pre-construction Phase Tree Protection Zone



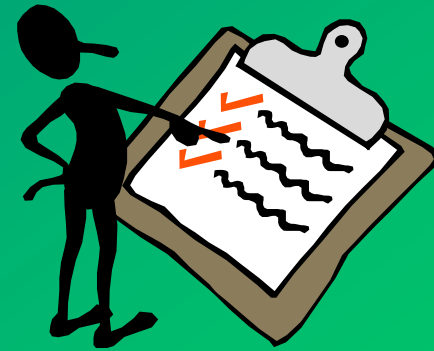
- Establish the zone
 - Root pruning
 - Fencing
 - Signs
 - Trunk protection
- Inspect the zone
- Respect the zone





Process

- Planning Phase
- Design Phase
- Pre-construction Phase
- **Construction Phase**
- Post Construction Phase





Construction Phase

- Site monitoring (project arborist)
 - Periodic contractor meetings (for each stage)
 - Damage assessment
 - Violation of contract reporting
- Landscape installation
 - Final grading, lighting, plant installation





Process

- Planning Phase
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- Construction Phase
- Post Construction Phase





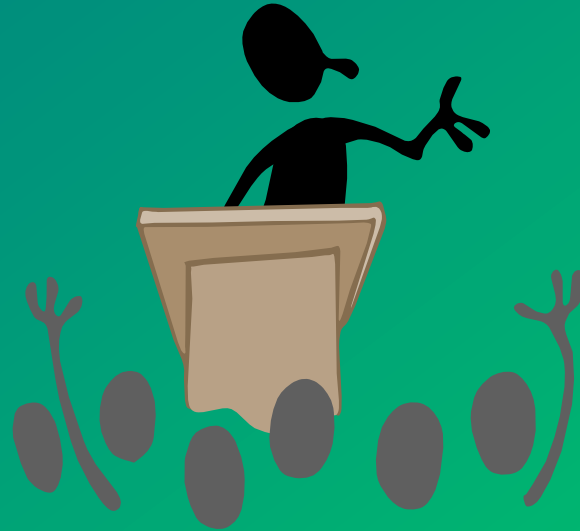
Post Construction Phase



- Once construction is completed the protection fencing can be removed
- Evaluate tree health and structure
- The findings of inspections and evaluations should become part of the management plan for the site.



??? Questions ???



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