

# Citizen Forester Training Spring 2016



Brought to you by:



# Value of Neighborhood Trees

- Aesthetic Values-  
increased property values
- Energy Saving
- Social Benefits –  
crime rates, healing properties
- Storm Water Benefits
- Protection –  
from ultraviolet light
- Pollution Reduction
- Oxygen Production



# Partnerships



- City of Rochester Parks and Recreation
- RNeighbors
- Minnesota Department of Natural Resources
- Minnesota Department of Agriculture
- Minnesota Conservation Corps
- Olmsted County Youth Commission
- Alliance for Community Trees
- Citizen Foresters
- Friends of Quarry Hill



# What is a Citizen Forester?

## Definition

An individual who has taken the Citizen Forester class and volunteers time to learn, work, and care for the urban trees in their neighborhood and community.



# Citizen Forester Tree Care Advocate



## What can you do?

- Educate yourself and others
- Be active & participate
- Volunteer to plant trees or maintain trees after planting.



# Pre-planting Site Preparations

Tree Planting Permit  
Gopher State One Call  
Overhead Obstructions  
Soil Type & Volume



Boulevard  
Grassy area  
between the street  
and sidewalk  
generally





**ROCHESTER PARK AND RECREATION DEPARTMENT**  
**403 East Center Street**  
**ROCHESTER MINNESOTA 55904**  
**TEL 507-328-2515**  
**FAX 507-328-2511**

**BOULEVARD-PARK TREE WORK PERMIT APPLICATION**

LOCATION \_\_\_\_\_

PROJECT SITE PLAN ATTACHED  YES  NO

TYPE OF WORK  TREE REMOVAL  TREE TRIMMING  STUMP GRINDING  TREE INJECTION  
 CABLING / BRACING  GRADING  EXCAVATION  OTHER \_\_\_\_\_

DESCRIPTION OF PROPOSED WORK: \_\_\_\_\_  
 \_\_\_\_\_

START DATE: \_\_\_\_\_ END DATE: \_\_\_\_\_

AFFECT TO PUBLIC: \_\_\_\_\_  
 \_\_\_\_\_

PROPERTY OWNER: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

REQUESTED BY: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ FAX: \_\_\_\_\_

E-MAIL \_\_\_\_\_

WORK TO BE DONE BY: \_\_\_\_\_

**DO NOT WRITE IN THIS SPACE**

PERMIT CONDITIONS: \_\_\_\_\_

PERMIT APPROVED
  PERMIT DENIED

PARK DEPARTMENT \_\_\_\_\_ DATE \_\_\_\_\_

# Gopher Locates



[www.Gopherstateonecall.org](http://www.Gopherstateonecall.org)







**BURIED**



*we pledge. we deliver*

A LOCAL 60000 UNION



**CABLE**



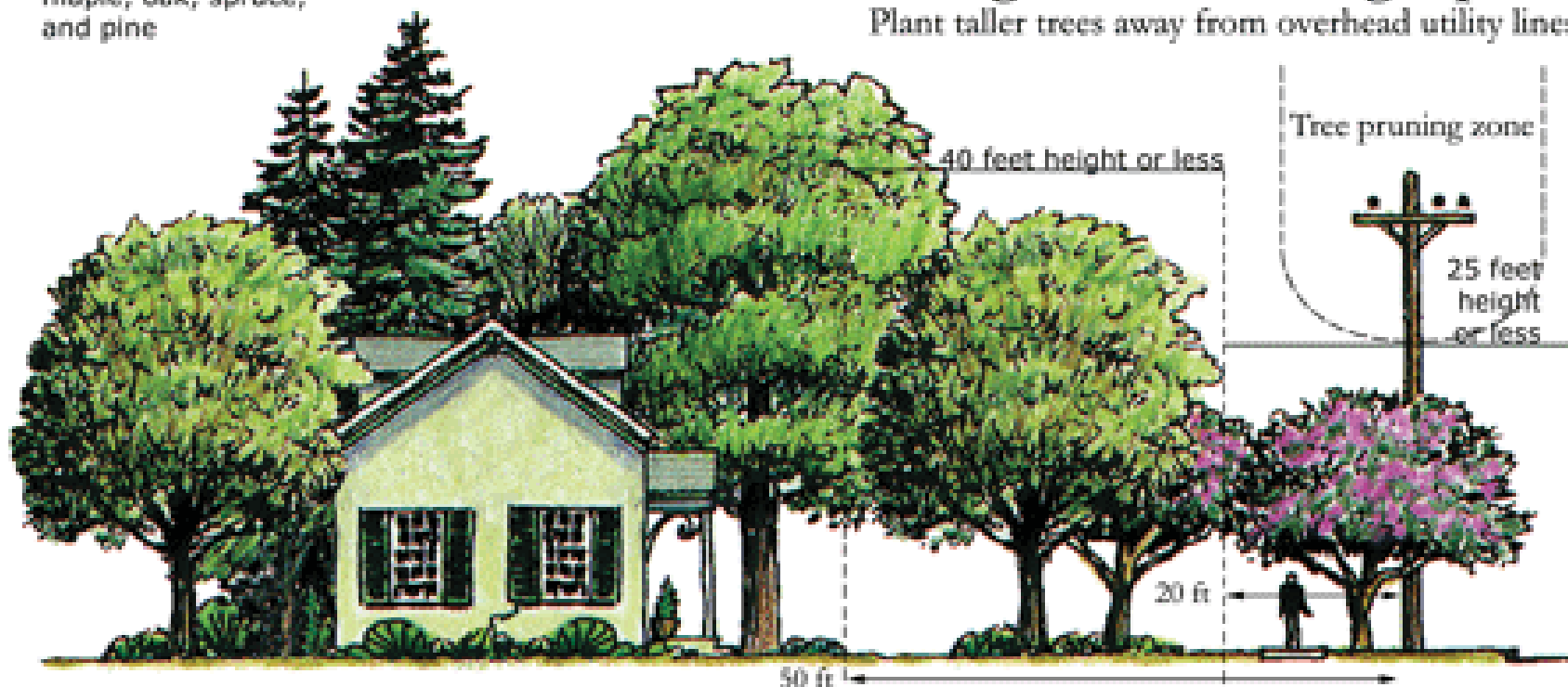


# Right Tree, Right Place

**Tall trees, such as:**  
maple, oak, spruce,  
and pine

**Plant the right tree in the right place**

Plant taller trees away from overhead utility lines



**Medium trees, such as:**  
washington hawthorn  
and goldenraintree

**Small trees, such as:**  
redbud, dogwood,  
and crabapple



# Overhead Obstructions











**off the mark**.com by Mark Parisi



# Pruning

- Chainsaw Safety
- Call a professional
- Citizen Pruner Course

© Mark Parisi, Permission required for use.





# Soil Type & Volume

- Soil Type
  - Loam, Clay, Sand
  - Percent Organic Matter
  - Percent Parent Material
- Soil Volume
  - Area that is accessible to roots
    - Limited by
      - Impermeable Materials
      - Compacted Soils

# Chlorosis

## Pin Oak with severe Iron Chlorosis



<http://forestry.usu.edu/htm/city-and-town/tree-care/preventing-and-treating-iron-chlorosis-in-trees-and-shrubs>

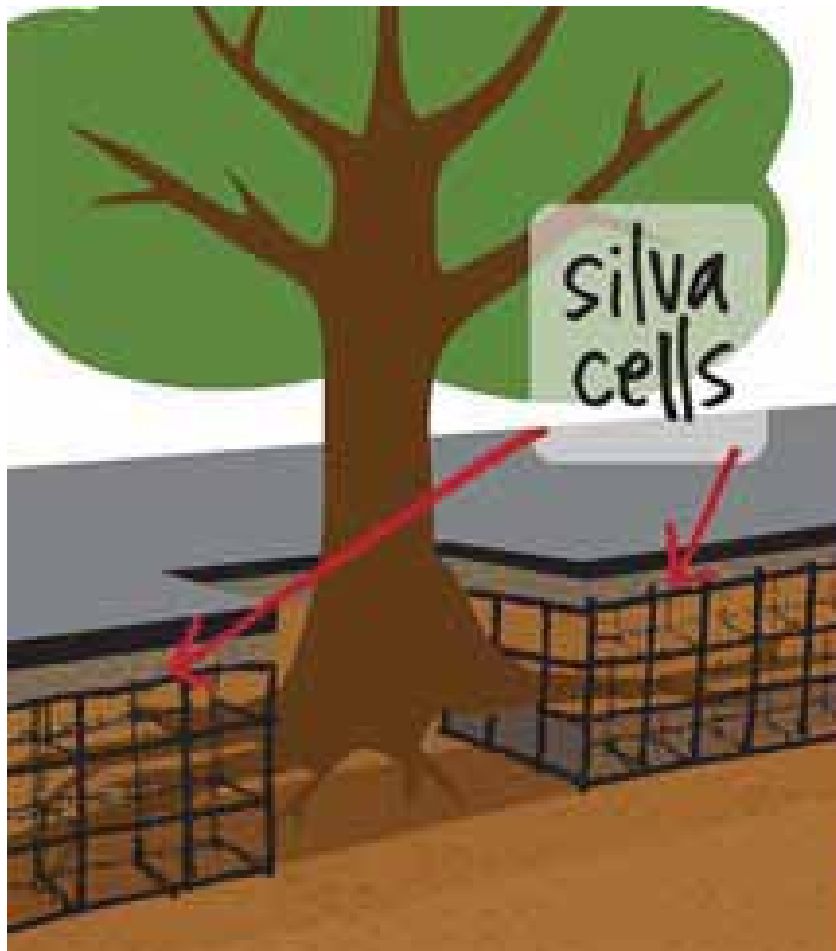


# Poor Gravely Soil & Low Soil Volume





# Silva Cells



## Silva Cells:

- make more space for tree roots
- absorb stormwater runoff
- create a healthier downtown



# Sidewalk Damage

- Public Works determines if there is a trip hazard and contracts repairs, or homeowner can make repairs
- Bills homeowner for cost of repairs
- Tree preservation or removal may be necessary

# Rich Loamy Soil & High Soil Volume





# Emerald Ash Borer

- Devastating insect brought here from China
- First found in Michigan now found in 27 states
- St. Paul infestation discovered in 2009
- Now found in 5 counties in Minnesota
- Winona, Houston and Olmsted counties are included in a quarantine
- Don't move firewood



## Background

Emerald Ash Borer is a 1/2 inch long green metallic insect native to Asia.

It was discovered in Southeast Michigan in July of 2002. As of July 2007, EAB is found in Michigan, Ohio, Maryland, Indiana, Illinois, Pennsylvania, and Ontario.



EAB attacks all true ash trees (mountain ash is not a true ash therefore, it is unaffected)



White Ash



Green Ash

## Is EAB Here?

EAB **has** been found in MN and the Rochester area. There are companies that are selling EAB treatments and preventions. Some treatments do have some success but are not effective in solving the EAB problem.

Want to help slow the spread?

- **Don't move firewood**
- Educate yourself and neighbors about the problem
- Stop planting ash trees



For more information visit:

<http://www.mda.state.mn.us/home.aspx>

<http://www.extension.umn.edu/>

<http://www.emeraldashborer.info/>

<http://www.entomology.wisc.edu/emeraldashborer/>

## UNWANTED! EMERALD ASH BORER



## Emerald Ash Borer

A Threat to  
Rochester's Urban  
Forest

507-328-2515

## How Do I Know If I Have EAB?

D-Shaped Exit Holes



S-Shaped Galleries

Canopy Dieback



Epicormic Sprouting

## EAB Look-Alikes



Elster Beetle



Tiger Beetle



Imported Green Weevil



Linden Borer

## What Is The Park & Forestry Division

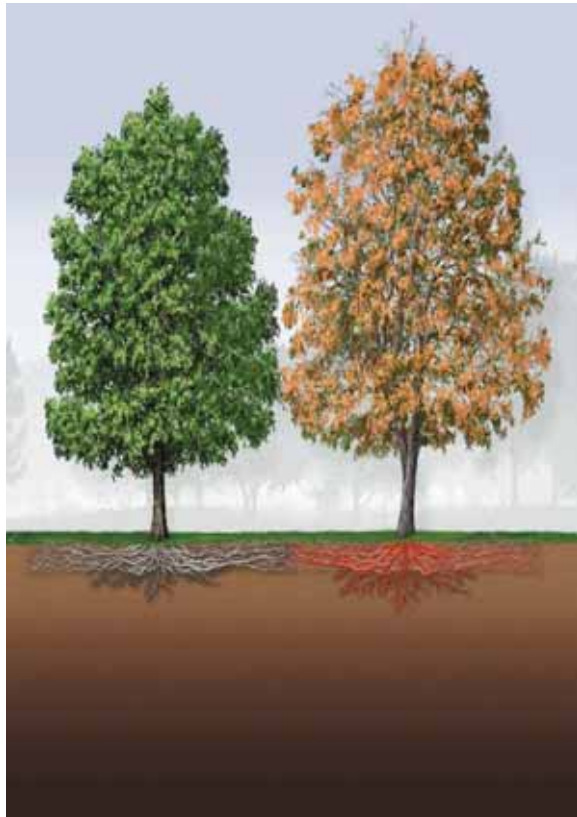
### Doing About EAB?

- Discontinued planting of ash in boulevards and public areas
  - Recommending citizens and businesses discontinue planting ash
  - City will begin removing poor quality ash in parks and boulevards
  - Issue permits for marginal boulevard ash trees to be removed and replaced at citizen expense
  - Allow RPU to remove all ash trees under power lines and replace them with line compatible tree species
  - All removed trees will be replaced with species diversity and proper planting techniques in mind to better protect our communities trees in the future \*
- \* These recommendations are dependant upon additional funding being allocated \***



# Disease

## Oak Wilt



## Dutch Elm Disease





# Cultivating GREAT Neighborhoods







## Mission

To empower citizen leaders to create sustainable neighborhood networks that promote a vibrant, healthy and livable community.

\* Calculated with \$23.07 per/hour, the latest estimated national value of volunteer time as determined by the Independent Sector.



# Project Samples



## RColorful Corners

- 3 Neighborhood street murals
- Paint for Farmer's Market mural

## Litter Bit Better

- April 23-30

## RNeighborWoods

- Citizen Forester Training
- Neighborhood Tree Grant
- Community Tree Planting

<https://vimeo.com/128213020>



# Stats

- City, business, & nonprofit partnership
- Since 2004, RNeighborWoods has organized 5,581 volunteers to plant 6,272 trees on Rochester boulevards.
- 16,743 volunteer hrs
- Mayor Urban Forest Award

# Recognition

- Arbor Day Foundation Excellence in Volunteer Management Award 2012
- Arbor Day Foundation City Tree Team 2011-12
- Olmsted County Environmental Award Winner for Friedell Butterfly Garden 2011
- Minnesota Community Forestry Treescaping Award 2010





# Neighborhood Grant



- Offered twice a year (spring & fall)
- 25 Free boulevard trees
- Planting assistance
- [RNeighbors.org](http://RNeighbors.org)



Neighbors Caring for Rochester's **Urban Forest**  
**RNeighborWoods**





4  
Species  
Reappeared



10  
Threatened or  
Endangered  
Native Species





**GET YOUR DAILY DOSE OF TREES**  
*for a healthy you and me*

- Arbor Day Celebration
  - Friday, April 29, 11 am-1 pm
  - Three Links – Silver Lake Park

RPU's 14th Annual  
**Arbor Day Celebration**  
 and Minnesota DNR's 2016 State Arbor Month Celebration Kick-off Event

ARBOR MONTH MAY 2016  
**GET YOUR DAILY DOSE OF TREES**  
*for a healthy you and me*

**Friday, April 29, 2016 • 11am-1pm • Three Links - Silver Lake Park**  
**ADMISSION IS FREE!**

• FREE Food\* • FREE Trees\* • Giveaways\* • Live Music • Family Activities • Poster Contest Winners Awarded •  
 RAIN LOCATION: RCTC's Field House • QUESTIONS: Stephanie Humphrey 507.280.1639 • MORE INFO: [www.rpu.org](http://www.rpu.org)

\*while supplies last

**SPONSORING PARTNERS:** **Maier TREE & LAWN** a DAVEY company

**CO-SPONSORS:**

**PARTICIPANTS:** Olmsted County Environmental Resources • Olmsted Soil & Water Conservation District  
 Rochester Public Library • Rochester Public Works • Zumbro Valley Audubon  
 Minnesota Department of Natural Resources (Arbor Month 2016 Partner)





## UMR CONNECTS

Free Professional Speaker Series

Every Tuesday at 7:00 p.m.  
4th Floor of University Square  
Downtown Rochester  
111 South Broadway

Details at  
[r.umn.edu/umrconnects](http://r.umn.edu/umrconnects)



# FREE PRESENTATIONS!

May Theme:

## Celebrating Arbor Month – The Health Benefits of Trees

- ◆ May 3.....**Designing Landscapes for a Healthier You**  
Jeff Feece, Landscape Architect, Sargent's Gardens
- ◆ May 10 ....**The Most Important Machine of All**  
Dr. Jim Maher, Career Scientist, Mayo Clinic
- ◆ May 17 ....**City Trees and Green Space Are Health Determinants: A Review of Evidence and Values**  
Dr. Kathleen Wolf, Social Scientist, University of Washington
- ◆ May 24....**Complex Answers to Simple Questions**  
Eric North, Research Fellow and Instructor,  
University of Minnesota Department of Forest Resources
- ◆ May 31....**i-Tree: Assessing and Sustaining the Public Health Benefits of Trees**  
Dr. Jason Henning, Research Urban Forester,  
Davey Institute

The Minnesota Department of Natural Resources is  
a partner for this month's UMR CONNECTS series.



# RNeighborWoods Spring



- Neighborhood Tree Grant  
Saturday, May 7, 8:30 am
  - Valhalla Park Condominiums  
NW
- Community Tree Planting  
Saturday, April 23, 8:30 am
  - Meet at Schmidt Park
  - 6222 24th Ave NW, park on  
Overland Drive NW
  - Citizen Forester group  
leaders are needed



Neighbors Caring for Rochester's **Urban Forest**  
**RNeighborWoods**



# Selecting Your Tree



Species

Packaging Method

Plant Condition





# Species

- Review site characteristics
- List desired plant attributes
- Develop a list of possible candidates
- Promote species diversity

# Packaging Methods



- Ball & Burlap
- Container
- Bare root
- Missouri Gravel Bed



# Balled in Burlap (B&B)



- **Balled in Burlap (B&B)** are dug with some roots and soil intact. It is wrapped in wire and burlap for shipment and planting. B&B trees are very heavy and can be expensive

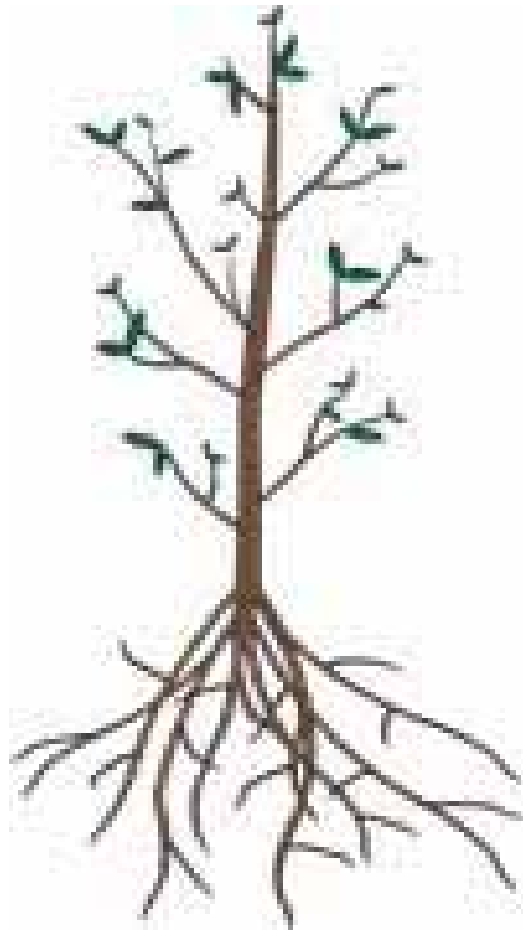


# Container Grown



- **Container-Grown** trees are planted and grown in containers at the nursery until they are ready for sale. A true container grown tree has 100% of a tree's root system intact.

# Bare Root Trees



- **Bare Root** trees are usually dormant and should be planted as soon as possible. Soak the roots before planting. If you can't plant immediately, keep the roots moist & cool!







# Plant Condition

## -inspect at the nursery

- Physical Damage
- Disease
- Depth in soil

# Physical Damage



# Depth in Soil (B&B or Container)





# Stem Girdling Roots









# Planting



- Digging the hole
- Box cutting
- Removing burlap/wire
- Planting





# Digging the Hole



The hole diameter should be three times the diameter of the root ball

## Digging the Hole (part 2)



This is not the recommended way to dig a hole –  
Notice how little of the soil is disturbed













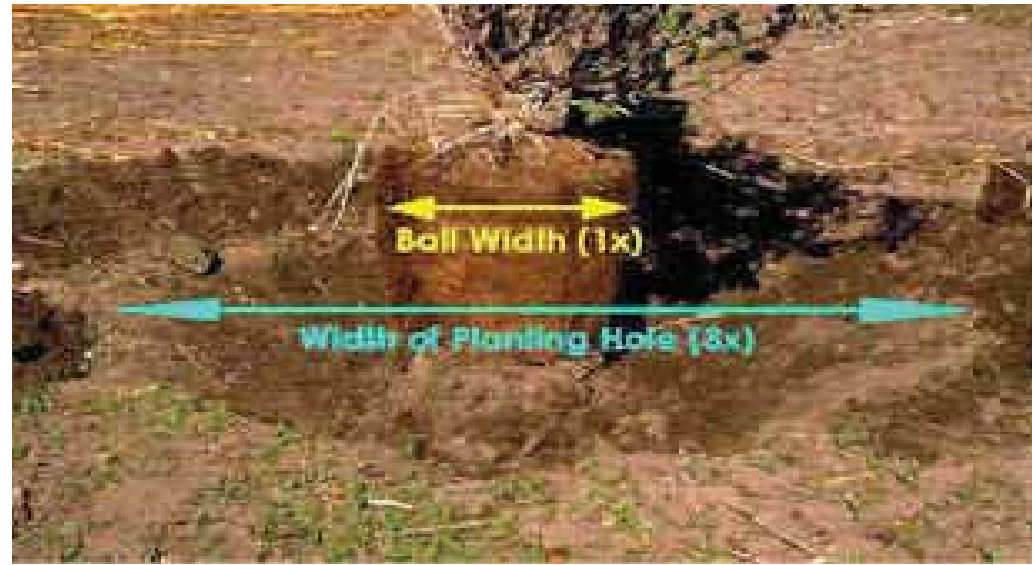






# Planting

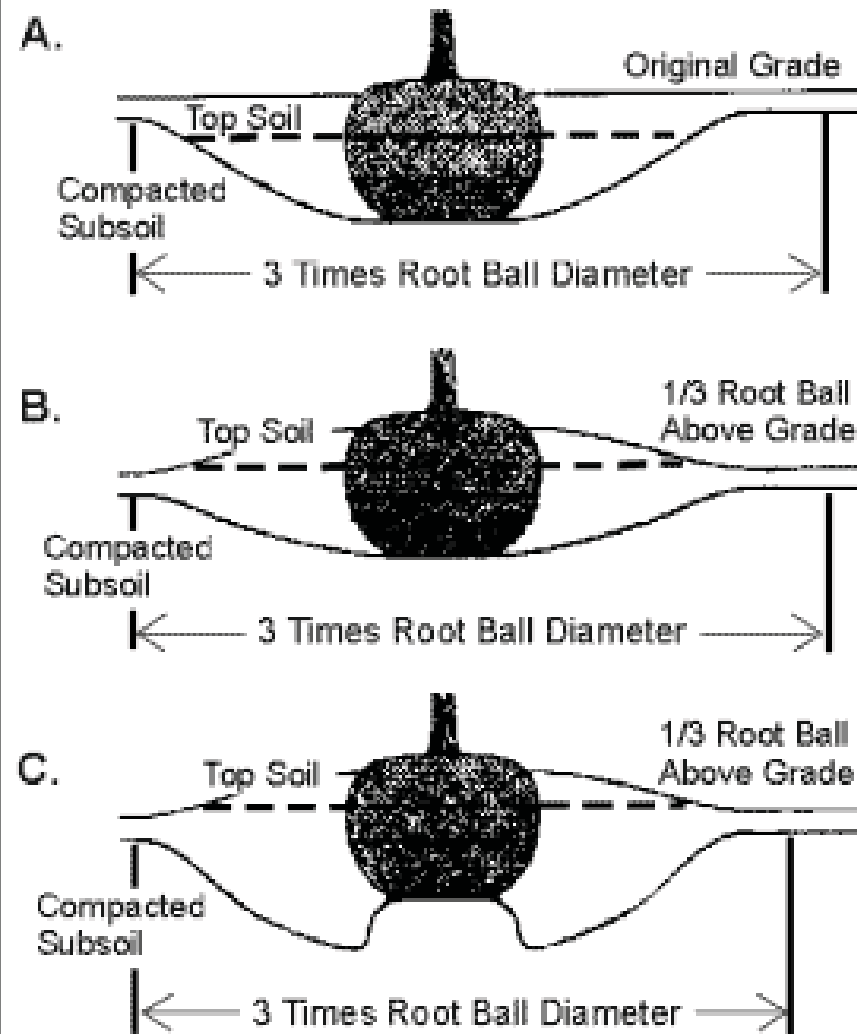
- The hole width should be 3 times the diameter of the root ball, container or spread of roots
- The most common mistake is digging too deep and narrow.



# General Hole Specifications

- \$10 hole, \$3 tree
- 3X the size of the root ball or root system
- Make adjustments based upon grade and site wetness
- Make adjustments for root flare depth in container (don't dig any deeper than necessary)

Figure 2. Planting Hole Modification





# Removing the Burlap



- Remove any string, wire or twine
- Cut at least the top third of the burlap
- Remove any soil from on top of the first lateral root



# Planting



- Compact the soil on the bottom of the hole
- Make sure that the tree is centered and straight for proper growth





# Post-Planting

Watering  
Staking  
Mulching  
Pruning  
Maintenance plan







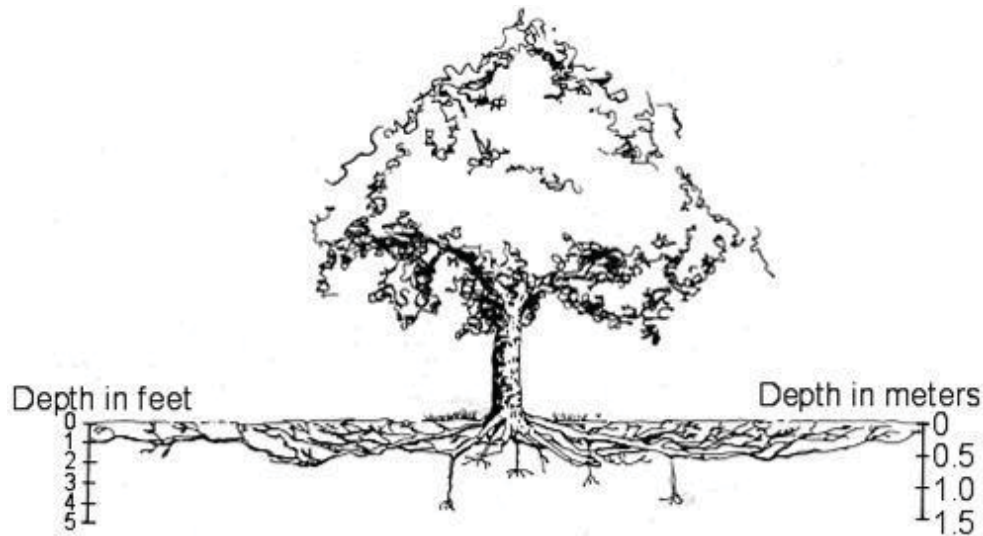
# Watering



- Initially use lots of water to thoroughly soak the tree (+/- 5 gallons)
- Repeat again a few days later depending on weather conditions



# Watering(cont.)

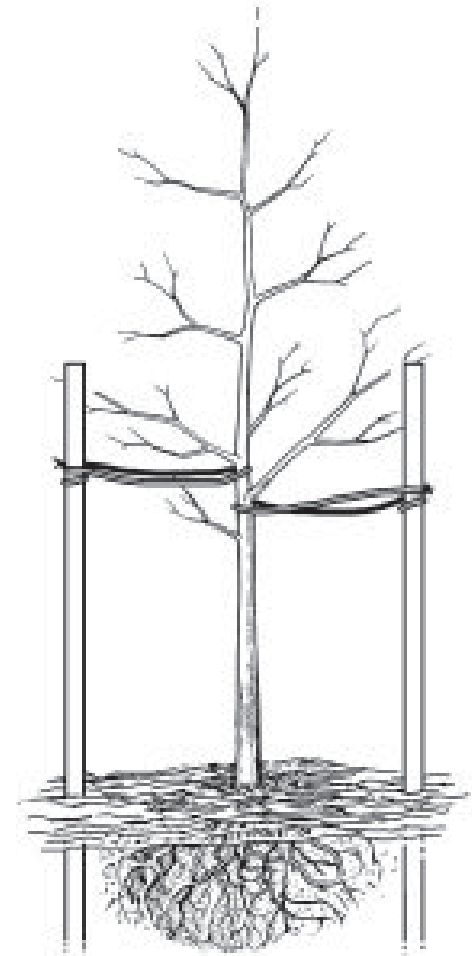


- Continue checking soil moisture level weekly for up to 3 years
- Mature trees can also benefit from watering in dry periods
- Watering your lawn is not watering your trees

# Staking



- Only if tree may fall over due to
  - Inadequate root system
  - Windy conditions
  - Vandalism problems





# Staking(cont.)



- Use flat strapping not round rope or wire
- Don't over tighten straps
- Check often
- Remove as soon as possible

# Mulching

- Spread 2-4 inches thick and 4-6 inches away from trunk to drip line
- Mulch retains moisture and provides nutrients







# Tree Guards







# Pruning

- Prune only broken or dead branches the first year after planting
- To learn more consider the citizen pruner Rochester program offered through the U of M

# The Future of City Trees

- Proper planting and pruning practices
- Educating the public and city officials on the benefits of trees
- Community and neighborhood association involvement
- RNeighborWoods







Rochester's Neighborhood Resource Center

**RNeighbors**

Providing tools to grow GREAT neighborhoods