



Tall Pot Tree Nursery Program



What are Tall Pots?

- Plants grown in a long container
- Various sizes
- 30" long; 6" diameter



Background

- USDA Forest Service
- David Bainbridge, San Diego State University - arid land tree species
- Joshua Tree National Park
- Arizona Game and Fish Department
- Center for Native and Urban Wildlife at Scottsdale Community College



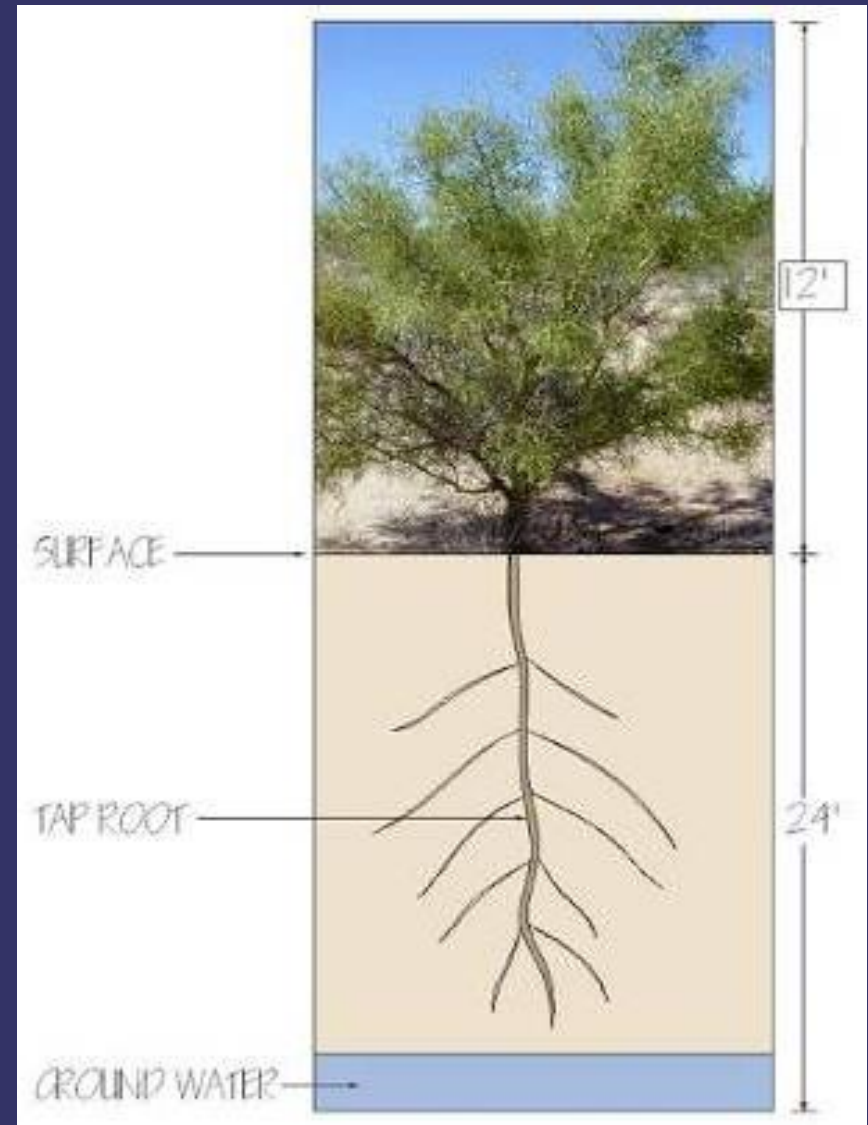
Background

- Our nursery was established at the Durango Complex in 2002



Why it Works

- Most desert species have long tap roots
- Tall pots mimic these growth characteristics of native desert trees
- Higher 'root to shoot' ratio helps survivability



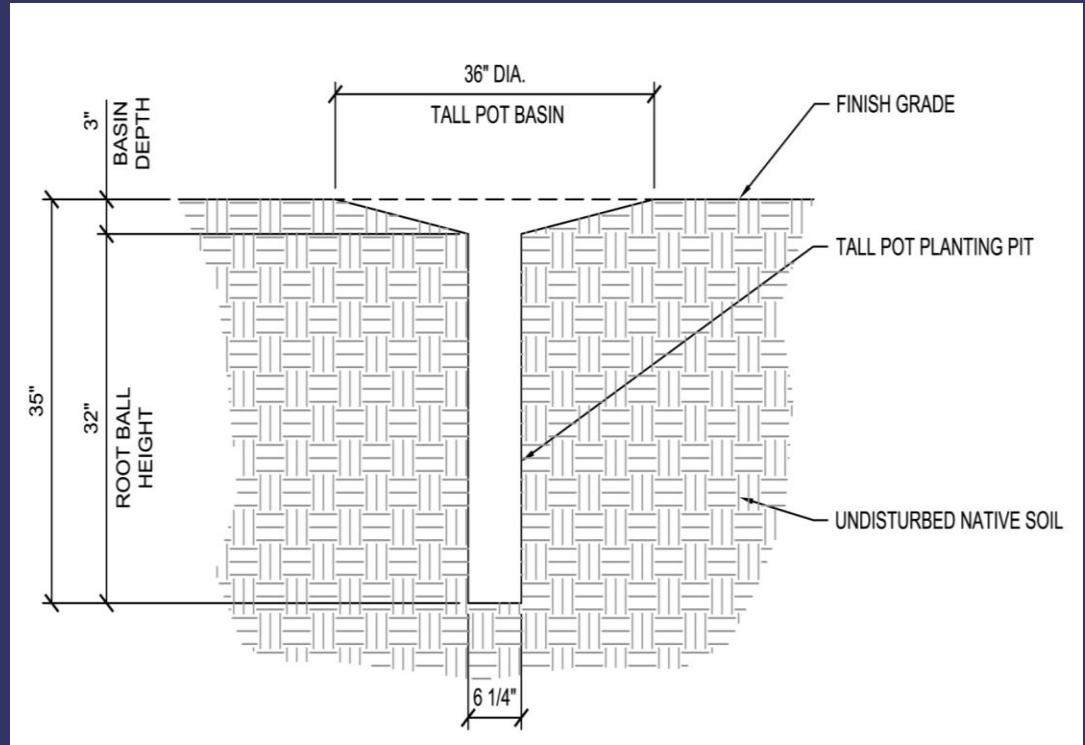
Propagation



Standard Tall Pot Installation

Step 1

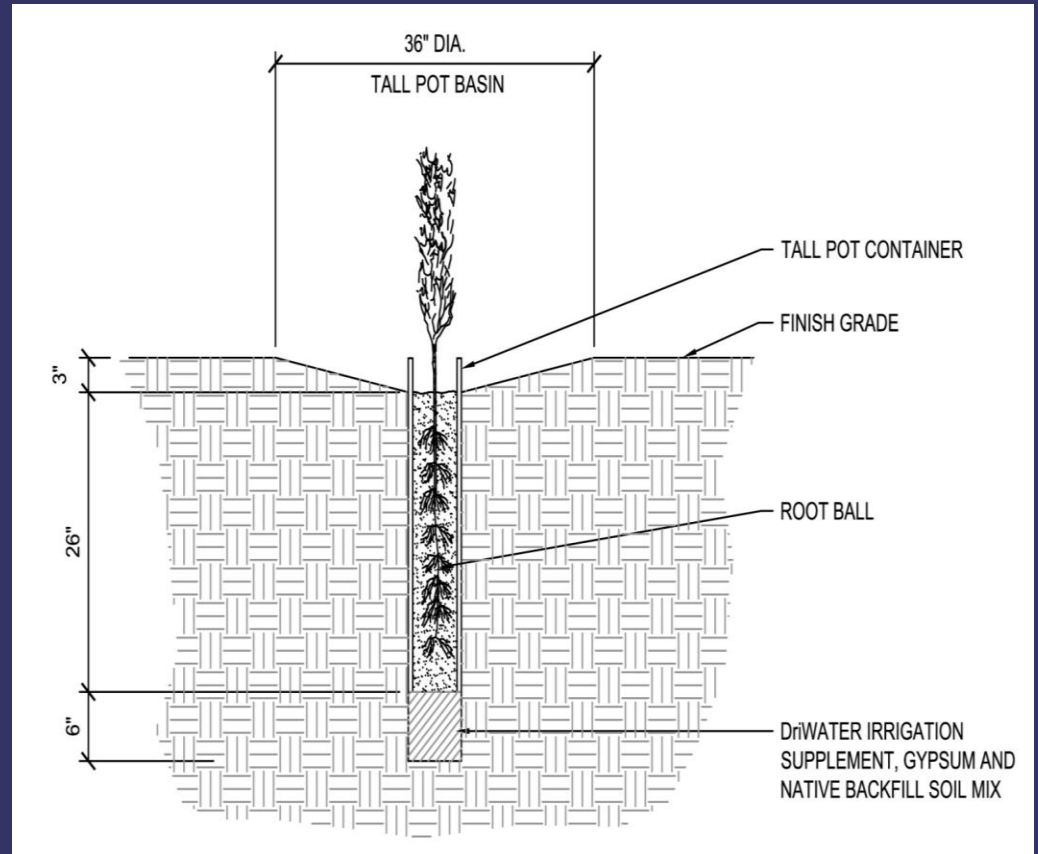
- Auger tall pot planting pit to 6-1/2 inches
- Fill pit with water
- Allow to drain completely
- Repeat above two steps
- Inspect pit for proper depth



Standard Tall Pot Planting

Step 2

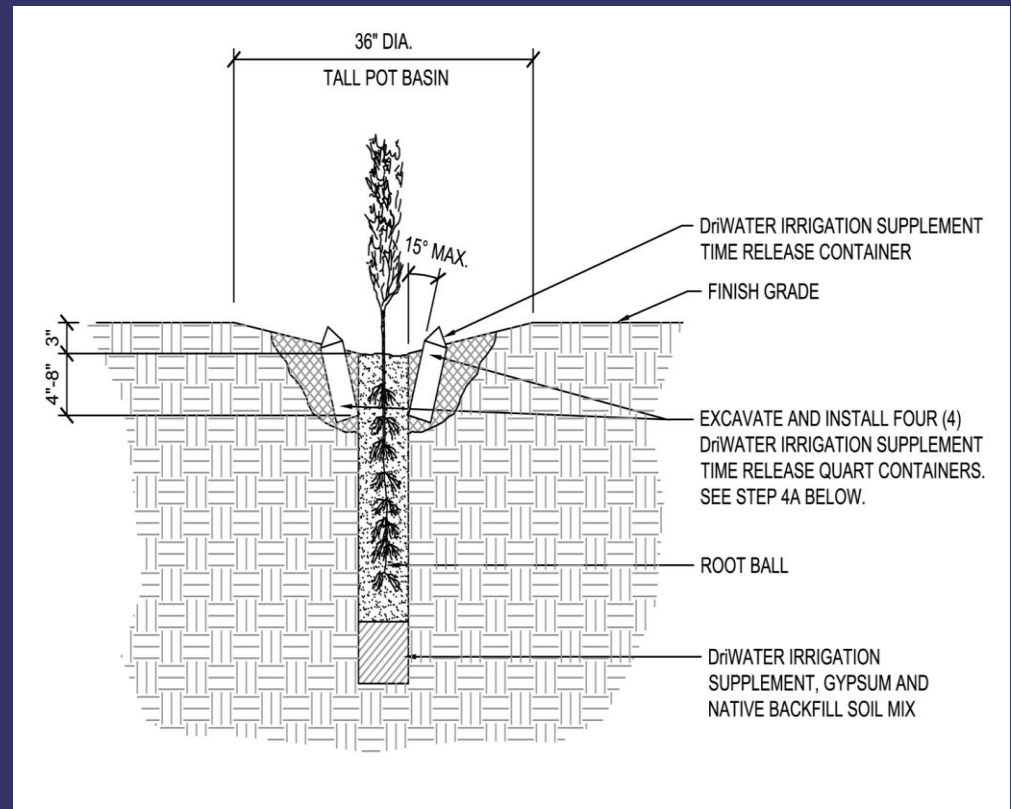
- DriWater + gypsum + native backfill soil mix to fill bottom 6 inches of pit
- Remove wire screen from bottom of tall pot container and install container in the pit
- Container is raised leaving the tall pot plant in the pit
- Backfill around rootball as container is raised

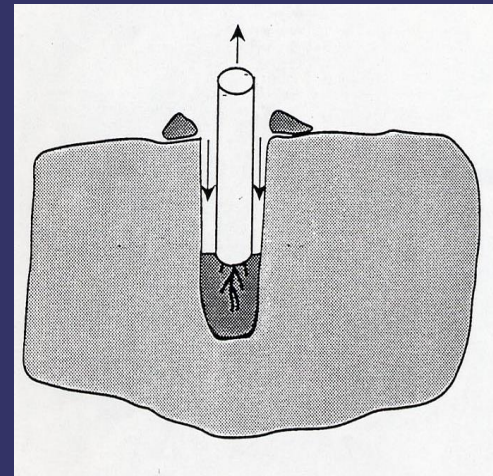


Standard Tall Pot Planting

Step 3

- Install 4 DriWater quarts/sleeves around the tree
- Backfill and reform tree well
- Water the plant again thoroughly
- Install protective devices
 - wire cages
 - deer/rodent repellent





Accomplishments

More than 10,000 tall pot trees planted since 2002



Success Stories

Reems Road Channel and Basin, 2009



Blue Palo Verde with just 3 years of growth!



Success Stories

FCDMC Durango Complex
2007



Success Stories

FCDMC Durango Complex
2015



Success Stories

Spook Hill FRS – Loop 202/Red Mountain Freeway, 2009

83% survival with five year monitoring results



Benefits

Native Tall Pot Trees:

- Do not require supplemental water
- Good survival rates
- Role in mitigating urban heat island effects, improving air quality, restoring disturbed landscapes
- Cost effective
- Provides a “missing tool” in the land restoration toolkit



Challenges

Native Tall Pot Trees:

- Growing for limited projects with fluctuating schedules
- Local seed sourcing
- Education to inspire demand
- Special tools for installation
- Research and monitoring
- Industry support



Opportunities

Native Tall Pot Trees:

- Encourage landscape nursery industry to adopt technique
- Increase contract growing opportunities
- Encourage use in:
 - Green infrastructure and alternative stormwater management projects
 - Shade and tree master plans
- Develop Collaborative partnerships
 - Public agencies
 - Academic institutions



What's Next?

- Expand nursery operations
 - Desert Upland species
 - Riparian species
- Continued promotion of benefits and opportunities
- Seek grant funding opportunities
- Develop internal monitoring/research protocols/studies
- Establish collaborative partnerships
 - Propagation
 - Research



Thank you!



Harry Cooper, RLA, ASLA

Landscape Architecture and Water Conservation Branch Manager

Flood Control District of Maricopa County

harrycooper@mail.maricopa.gov

602-506-2956



