

TREE PLANTING SPECIFICATIONS FOR COMMUNITY TREE PLANTING GRANTS

Part 1 General

1.1 Scope of Work

1.1.1 Planting trees

1.1.2 Initial maintenance and guarantee of plant materials

1.2 Quality and Performance Assurances

1.2.1 The Subrecipient shall furnish all contractors with a copy of these specifications, and all contractors must read, sign one copy, and agree to follow specifications outlined.

1.2.2 The Subrecipient shall inspect work periodically to ensure that all specifications are adhered to. Changes in specifications can be made only after approval from the Urban and Community Forestry Program.

1.2.3 Subrecipient shall ensure that contractors use all means necessary to protect all materials before, during and after installation, including proper storage. Follow the manufacturer's recommended procedures for unloading, storage and installation where applicable.

1.2.4 Plant materials shall be in accordance with the American Standard for Nursery Stock, ANSI Z60-1-1990, as defined by the American Association of Nurserymen.

1.3 Warranty

1.3.1 All plant material shall remain alive and be in a healthy, vigorous condition for a period of three years after completion of the entire project.

1.3.2 Replace, in accordance with the drawings and specifications, all plants that are dead or, as determined by the Subrecipient or staff with the Urban and Community Forestry Program, are in an unhealthy or unsightly condition. Subrecipient or contractor shall bear the cost of replacement(s).

Part 2 Products

2.1 Plant Materials

2.1.1 Plant material shall conform to American Standard for Nursery Stock, ANSI Z60.1.

2.1.2 Plants shall be of the form necessary to meet design standards. They shall be sound, healthy, vigorous, well-branched and densely foliated when in leaf and free of disease and insects (eggs or larvae). They shall have healthy, well-developed root systems and shall be free from physical damage or other conditions that would prevent thriving growth.

2.1.3 Trees with multiple leaders, unless specified, will be rejected. Trees with damaged or crooked leader, abrasion of bark, sunscald, disfiguring knots, insect damage, or cuts of limbs over $\frac{3}{4}$ inch (2 centimeters) in diameter that are not completely calloused should be rejected.

2.1.4 Plants shall conform to the measurements specified, except for plants larger than those specified. If larger plants are used, the root ball shall be increased in proportion to the size of the plant. Caliper measurements shall be taken on the trunk 6 inches (15 centimeters) above the natural ground line. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to branch tip. Plants shall be measured when branches are in their normal position. If a range of size is given, no plant shall be less than the minimum size specified.

2.1.5 All plants shall be labeled by plant name and size. Labels shall be attached securely to all plants, bundles and containers of plant materials when delivered. Plant labels shall be durable and legible, with information given in weather-resistant ink or embossed process lettering.

2.2 Mulch

2.2.1 Mulch should be 6 months old well-rotted woodchip mulch not larger than 4 inches in length and ½-inch in width, free from sawdust, or twigs.

Part 3 Execution

3.1 Plant Materials

3.1.1 Plants should not be accepted if the root ball is dry, cracked or broken before or during planting operation. The root flare shall be within the top 2 inches of the soil ball.

3.2 Excavation

3.2.1 Tree pit depth shall be estimated prior to digging by first removing the packaging and excess soil from the top of the root ball to expose the root flare. Tree pits are to be excavated no deeper than the depth required to position the root flare at the finished grade. Where there is a concern for particularly heavy clay or compacted fill soil, pits should be three (3) times the diameter of the root ball. Where soil is more favorable, the pits shall be at least 12 inches greater in diameter than the root ball.

3.2.2 Sub-grade soils shall be separated from the upper topsoil and if of poor quality, replaced with topsoil when backfilling. Sub-grade soil in pits shall be left undisturbed.

3.2.3 If tree pits are excavated with mechanical equipment, scarify the sidewalls and bottom prior to planting. Care shall be exercised to reduce soil compaction on site.

3.3 Planting Operations

3.3.1 Plants must be protected at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be kept in the shade, well-protected with soil, covered with wet mulch or other acceptable material, and kept well-watered. Plants shall not remain unplanted any longer than three days after delivery to the site. Plants shall not be bound with wire or rope so as to

damage the bark or break branches. Plants shall be lifted and handled with suitable support of the soil ball to avoid damage.

3.3.2 Plants shall be set at the same relationship to finish grade as they were to the ground from which they were dug. Plants must be set plumb and held rigidly in position until prepared topsoil has been tamped solidly around the ball and roots. Plants shall be set so that they will be the same depth in one year. The trees shall be planted with the top of the root flare, or first woody root, exposed even if soil must be removed gently from the top of the ball. Briefly remove burlap to inspect root ball prior to setting in hole to determine proper hole depth.

3.3.3 Ropes, strings and wrapping from the ball shall be removed before the plant is backfilled, although the bottom 1/3 of the wrapping may be left intact under the ball in certain cases, if deemed better for plant survival by a certified arborist. All waterproof or non-degradable wrappings shall be removed from the ball. Wire baskets shall be cut and removed from the ball.

3.3.4 Plant pits shall be backfilled with on-site excavated material unless directed otherwise. When pits are approximately 2/3 full, they shall be thoroughly watered to eliminate air pockets. After this initial watering, topsoil is to be installed to the top of pit and watered. Puddled soil conditions are to be avoided.

3.3.5 Planting areas are to be finish-graded to conform to grades after full settlement has occurred.

3.3.6 Plantings shall receive a 3" (10 cm) layer of mulch in minimum of a 24" diameter circle around the trunk of the tree, without touching the tree trunk itself.

3.3.7 Plants shall be thoroughly watered immediately after planting.

3.4 Staking/Guying, Wrapping and Pruning (OPTIONAL)

3.4.1 Staking shall be done only if the tree requires support in strong winds or protection from equipment, vehicles or vandals. If staking is necessary, stakes of non-rusting metal or untreated wood shall be driven outside the root ball and attached to the tree with broad straps, not wires, about six inches above the lowest level at which the trunk can be held and still return upright after the top is deflected. The Contractor or Subrecipient shall be responsible for removing, staking and guying materials no later than one year after planting.

3.4.2 Trees shall not be wrapped except in extreme weather zones or where reflective heat could be a problem. Wrapping shall only be used during the winter months. It is the responsibility of the Contractor or Subrecipient to remove the wrap in the spring.

3.4.3 Plants may be pruned at the time of planting to remove broken branches or to correct the structure with small cuts. All such cuts shall be made with a

sharp tool and in a manner to retain and encourage the plant's natural growth characteristics. The crown of a young tree shall not be cut back to compensate for root loss. Wound paint or dressing shall not be used.

3.5 Maintenance of Plant Materials

3.5.1 Maintenance shall consist of watering, cultivating, weeding, mulching, tightening and repairing straps and stakes, stake and wrap removal after one growing season, resetting plants to proper grades or upright position, and furnishing and applying such sprays or other materials as are necessary to keep plantings free of insects and disease and in healthy and thriving condition. The Subrecipient and the Contractor should arrange who is responsible for this maintenance.

3.6 Guarantee Period and Replacements

3.6.1 The guarantee period for plant materials shall begin at the date of planting.

3.6.2 The contractor shall guarantee all plant material to be in healthy and thriving condition for a period of one year from the date of acceptance.

3.6.3 The Contractor shall replace, without cost and promptly as weather conditions permit, all plants determined by the Subrecipient to be dead or dying during the guarantee period. Plants with dead or dying branches or branch tips, or with foliage showing abnormal density, size or color shall be replaced except where the contractor demonstrates that plant failure was not attributable to their actions or negligence. Replacements shall be subject to requirements stated in this specification.

3.6.4 The guarantee of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement. In the event that a replacement plant is not acceptable during the extended guarantee period, the Subrecipient may elect subsequent replacement or credit for that item.

3.7 Planting Season

3.7.1 All deciduous material shall have been dug when dormant and prior to bud swelling.

3.7.2 All conifers shall be dug in the spring, prior to bud elongation or in late summer after new growth has hardened off.

3.7.3 Planting should take place as soon as possible after trees have been dug. Planting should take place in the spring or fall.

3.7.4 Although discouraged, summer planting may be performed if additional measures are taken to ensure proper irrigation.

3.8 Watering and Care

A clear watering plan including devices like watering bags and soaker hoses etc. should be established to ensure tree survival. For the first two years after planting, the trees shall be watered at least weekly during the growing season (May – September). Contractor or

Subrecipient shall keep the area immediately surrounding the tree's trunk free from weeds or grass.