

**Georgia's Growing ARRA Green Program: Tree Planting to Support Green Jobs
a project of the Limestone Valley RC&D and Rolling Hills RC&D Council**

TREE PLANTING AND MAINTENANCE GUIDELINES

1. Scope of Work:

- These specifications, including drawings and plant materials lists, apply to those items necessary for and incidental to the execution and completion of planting as indicated herein.
- All labor, supervision, equipment, materials, and supplies necessary for the execution of the work shall be provided for by the Contractor at no additional cost to the Council.
- Reasonable care shall be exercised during excavation, planting, filling, grading, and cleanup, to protect from damage all existing trees, shrubs, and other specified vegetation, and other site features, improvements, structures, and utilities.

2. Applicable Specifications and Standards:

- American Standard for Nursery Stock, ANSI Z60.1. current edition. American Nursery and Landscape Association, 1000 Vermont Ave. NW, Suite 300, Washington, D.C.20005
- American National Standard for Tree Care Operations, ANSI A300 -most current edition. International Society of Arboriculture, PO Box 3129, Champaign IL 61826-3129.

3. Planting Season

All planting shall be done within the following dates:

- Execution of contract date through April 30, 2010 for current season.

* If special conditions exist that warrant a variance in the above planting dates, a written request shall be submitted by the Contractor to John Hendrickson, Certified Arborist at 770-749-0444 or jhendrickson@rollinghillsrcd.org stating the special conditions and the proposed variance. Permission for the variance will be granted at the discretion of the Purchaser.

4. Plant Materials Requirements

All plant materials will conform to the standards for plant material size and quality found in *American Standard for Nursery Stock, ANSI Z60.1*. American Nursery and Landscape Association, 1250 Eye Street. NW, Suite 500, Washington, D.C. 20005.

1. Plants shall be true to species and variety specified and nursery-grown in accordance with good horticultural practices under climatic conditions similar to those in the locality of the project for at least two years. They shall have been freshly dug (during the most recent favorable harvest season).
 2. Unless approved by *ROLLING HILLS RC&D* or *LIMESTONE VALLEY RC&D*, plants shall have been grown at latitude not more than 325 km (200 miles) north or south of the latitude of the project unless the provenance of the plant can be documented to be compatible with the latitude and cold hardiness zone of the planting location.
 3. Substitutions of plant materials will not be permitted unless approved by *ROLLING HILLS RC&D* or *LIMESTONE VALLEY RC&D*. If proof is submitted in writing that a plant specified is not obtainable, consideration will be given to the nearest available size or similar variety, with a corresponding adjustment of the contract price.
- A. Trees designated B&B shall be properly dug with firm, natural balls of soil retaining as many fibrous roots as possible, in sizes and shapes as specified in the *American Standard for Nursery Stock*. Balls shall be firmly wrapped with non-synthetic, degradable burlap and secured

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with nails and heavy twine. The root collar shall be apparent at surface of ball. Trees with loose, broken, processed, or manufactured root balls will not be accepted.

- B. Trees with multiple leaders, unless specified, will be rejected. Trees with a damaged or crooked leader bark abrasions, sunscald, disfiguring knots, insect damage, or cuts of limbs over 20 mm (3/4 in.) in diameter that are not completely closed will be rejected.

5. Transportation and Storage of Plant Materials

- A. Branches shall be tied with rope or twine only, and in such a manner that no damage will occur to the bark or branches.
- B. During transportation of plant material, the contractor shall exercise care to prevent injury and drying out of the trees. Should the roots be dried out, large branches broken, balls of earth broken or loosened, or areas of bark torn, *Rolling Hills RC&D or Limestone Valley RC&D* may reject the injured tree(s) and order them replaced at no additional cost to the owner. All loads of plants shall be covered at all times with tarpaulin or canvas. Loads that are not protected will be rejected.
- C. Plants must be protected at all times from sun or drying winds. Those that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, wet mulch, or other acceptable material, and kept well watered. Plants shall not remain unplanted any longer than three days after delivery. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled with suitable support of the soil ball to avoid damaging it.

6. Excavation of Planting Areas

- A. The Council will stake or mark with paint all planting areas before digging. The Contractor will notify Digger's Hotline to verify location of underground utilities before excavation begins. The Contractor shall be responsible for assuring that utility marking is complete before excavation begins. The Contractor shall be responsible for all damage resulting from neglect or failure to comply with this requirement.
- B. The Contractor shall excavate planting areas as shown on the drawings (# 18 below). Excavation may be done by shovel, backhoe or stump grinder, but a soil auger may not be used.

7. Planting Directions

Trees shall be planted according to the specifications found in "Tree Planting and Establishment Guidelines" of the Georgia Forestry Commission, 2002.

- A. Plants shall be set on flat-tamped or unexcavated pads at the same relationship to finished grade as they were to the ground from which they were dug, unless otherwise noted on the drawings. Plants must be set plumb and braced in position until topsoil or planting mix has been placed and tamped around the base of the root ball. Improper compacting of the soil around the root ball may result in the tree settling or leaning. Plants shall be set so that they will be at the same depth and so that the root ball does not shift or move laterally one year later.

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1. Determine the elevation of the root flare and ensure that it is planted at grade. This may require that the tree be set higher than the grade in the nursery.
 2. If the root flare is less than 50 mm (2 in.) below the soil level of the root ball, plant at the tree the appropriate level above the grade to set the flare even with the grade. If the flare is more than 50 mm (2 in) at the center of the root ball the tree shall be rejected.
- A. Lift plants only from the bottom of the root balls or with belts or lifting harnesses of sufficient width not to damage the root balls. Do not lift trees by their trunk or use the trunk as a lever in positioning or moving the tree in the planting area.
 - B. Remove plastic, paper, or fiber pots from containerized plant material. Pull roots out of the root mat, and cut circling roots with a sharp knife. Loosen the potting medium and shake away from the root mat. Immediately after removing the container, install the plant such that the roots do not dry out. Pack planting mix around the exposed roots while planting.
 - C. Cut ropes or strings from the top of shrub root balls and trees smaller than 3 in. caliper after plant has been set. Remove burlap or cloth wrapping and any wire baskets from around top half of balls. Do not turn under and bury portions of burlap at top of ball.
 1. Completely remove any waterproof or water-repellant strings or wrappings from the root ball and trunk before backfilling.
 - D. Place native soil into the area around the tree, tamping lightly to reduce settlement, and prevent shifting or leaning of the root ball.
 - E. Thoroughly water all plants immediately after planting. Apply water by hose directly to the root ball and the adjacent soil.
 - F. Remove all tags, labels, strings, etc. from all plants.
 - G. Remove any excess soil, debris, and planting material from the job site at the end of each workday.
 - H. Form watering saucers 100 mm (4 in.) high immediately outside the area of the root ball of each tree as indicated on the drawings.

8. Mulching

- A. All trees will be mulched with mulch previously approved by the Council representative. The mulch on trees and shrubs shall be to the depths shown on the drawing. Mulch must not be placed within 8 cm (3 in.) of the trunks of trees or shrubs.

9. Maintenance of Trees

- A. Maintenance shall begin immediately after each plant is planted and continue until its acceptance has been confirmed by the Council representative.
- B. Maintenance shall consist of pruning, watering, cultivating, weeding, mulching, tightening and repairing guys and stakes, resetting plants to proper grades or upright position, restoring of the planting saucer, and furnishing and applying such sprays or other materials as necessary to keep plantings free of insects and diseases and in vigorous condition.
- C. Planting areas and plants shall be protected at all times against trespassing and damage of all kinds for the duration of the maintenance period. If a plant becomes damaged or injured, it shall be treated or replaced as directed by the Council representative at no additional cost.
- D. Watering: Contractor shall irrigate as required to maintain vigorous and healthy tree growth. Over-watering or flooding shall not be allowed. The contractor shall monitor, adjust, and use existing irrigation facilities, if available, and furnish any additional material, equipment, or water

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to ensure adequate irrigation. Root balls of all trees and large shrubs shall be spot watered using handheld hoses during the first four months after planting, as required to ensure adequate water within the root ball.

- E. During periods of restricted water usage, all governmental regulations (permanent and temporary) shall be followed. The contractor may have to transport water from ponds or other sources, at no additional expense to the owner when irrigation systems are unavailable.

10. Acceptance

- A. The Council representative shall inspect all work for acceptance upon written request of the contractor. The request shall be received at least ten calendar days before the anticipated date of inspection.
- B. Acceptance of plant material shall be for general conformance to specified size, character, and quality and shall not relieve the contractor of responsibility for full conformance to the contract documents, including correct species.
- C. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Council representative, the Council representative shall certify in writing that the work has been accepted.

11. Acceptance in Part

- A. Work may be accepted in parts when the Council representative and contractor deem that practice to be in their mutual interest. Approval must be given in writing by the Council representative to the contractor verifying that the work is to be completed in parts. Acceptance of work in parts shall not waive any other provision of this contract.

12. Guarantee Period and Replacement

- A. The guarantee period for trees and shrubs shall begin at the date of acceptance.
- B. The contractor shall guarantee all plant material to be in healthy and flourishing condition for a period of one year from the date of acceptance.
- C. When work is accepted in parts, the guarantee periods extend from each of the partial acceptances to the terminal date of the guarantee of the last acceptance. Thus, all guarantee periods terminate at one time.
- D. The contractor shall replace, without cost, as soon as weather conditions permit, and within a specified planting period, all plants determined by the Council representative to be dead or in an unacceptable condition during and at the end of the guarantee period. To be considered acceptable, plants shall be free of dead or dying branches and branch tips and shall bear foliage of normal density, size, and color. Replacements shall closely match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification.
- E. 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 or at the end of said extended guarantee period, the Council representative may elect subsequent replacement or credit for that item.
- F. At the end of the guarantee, the contractor shall reset grades that have settled below the proposed grades on the drawings.

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- G. The contractor shall make periodic inspections, at no extra cost, during the guarantee period to determine what changes, if any, should be made in the maintenance program. If changes are recommended, they shall be submitted in writing to the Council representative. Claims by the contractor that the owner's maintenance practices or lack of maintenance resulted in dead or dying plants will not be considered if such claims have not been documented by the contractor during the guarantee period.

13. Cleanup

Soil, branches, binding and wrapping material, rejected plants, or other debris resulting from any tree planting shall be promptly cleaned up and removed. The work area shall be kept safe and neat at all times until the cleanup operation is completed. Under no condition shall the accumulation of soil, branches, or other debris be allowed upon a public property in such a manner as to result in a public hazard.

14. Final Inspection and Final Acceptance

- A. At the end of the guarantee period and upon written request of the contractor, the Council representative will inspect all guaranteed work for final acceptance. The request shall be received at least ten calendar days before the anticipated date for final inspection. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Council representative at that time, the Council representative shall certify, in writing, that the project has received final acceptance.

15. Tree Maintenance Plan

Upon installation

- mulch
- hand watering 10 – 15 gallons weekly through November pending local rains
- first week in December inspect for insect and damaged branches – weekly – prune as necessary

Next spring Establishment period

- mulch – first week in March and mid-September
- hand watering 10 – 15 gallons weekly through November pending local rains
- first week in December inspect for insect and damaged branches – weekly – prune as necessary

Following Spring Establishment period

- mulch – first week in March and mid-September
- inspect for insect and damaged branches – monthly – prune as necessary

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16. Payment Schedule

A variety of payment schedules are possible. However, the planned and preferably method of payment by the Council is listed below:

- 30 days or less after receiving proper documentation (invoices) for tree purchases from Contractor and acceptance of stock by Council.
- 30 days or less after receiving proper documentation (ARRA timesheets and invoices) from Contractor for installation of trees and acceptance by Council.
- 30 days or less for 10% hold back after final inspection (end of maintenance period).
- Any deviations from the above model must be requested in writing and approved by the Council.

17. ARRA Documentation

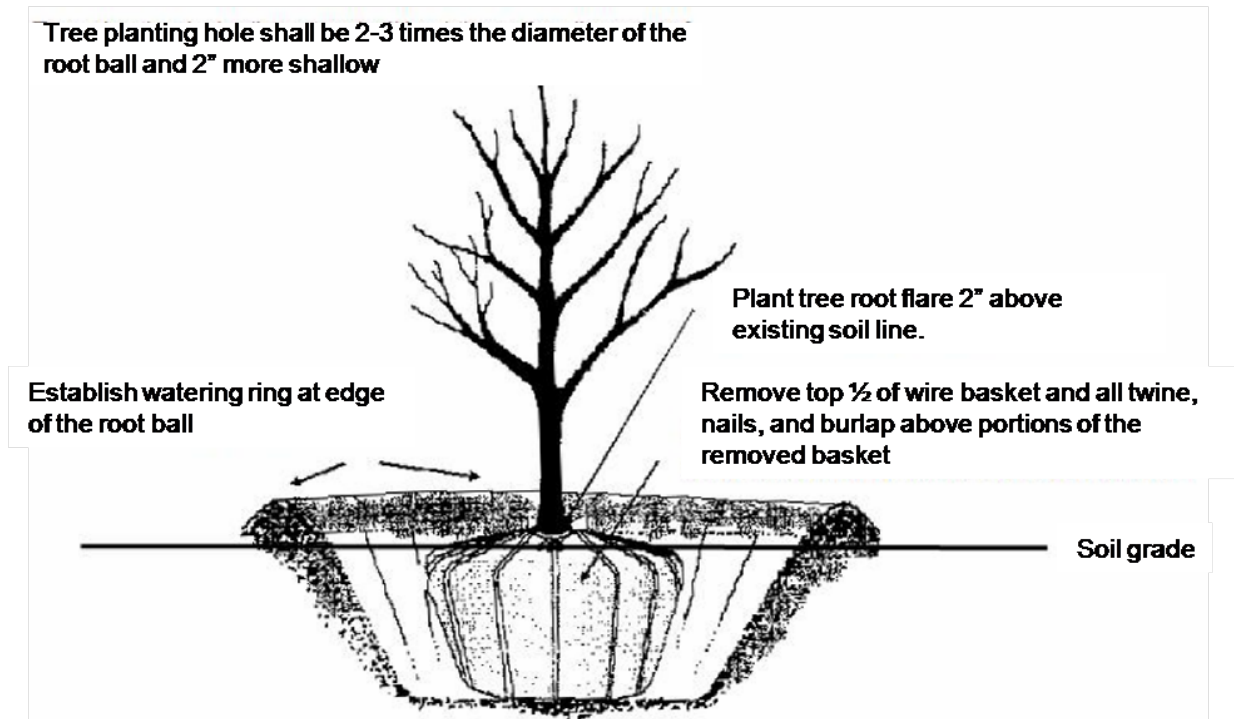
The American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (ARRA) was enacted to preserve and create jobs and promote economic recovery in areas impacted by the current recession. Since this tree planting project is funded by ARRA monies, all awarded Contractors must follow specific reporting guidelines (timesheets and invoices). Detail forms and instruction will be provided with contract. Additionally, all awarded contractors must comply with federal and state immigration laws.

To view ARRA reporting and subcontractor requirements, please call the council office or visit their website at www.rollinghillsrcd.org.

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18. Tree Selection, Planting, and Establishment Specifications

1. All plant material will be **1.75" to 3" caliper** in size and conform to the **American Standard for Nursery Stock**.
2. All trees will be installed according to the following planting detail:



3. Trees damaged as a result of poor installation practices or mishandling during shipment will not be accepted.
4. All backfill will consist entirely of native soil. **No soil amendments will be added.**
5. Trees will not be staked unless in **excess of 10 feet in height**. All trees installed under these specifications will be warranted for **one (1) year**.
6. As part of the **one (1) year warranty tree maintenance** will include regular watering, mulching, removal of damaged branches, and insect control according to the following schedule:
 - a. Mulching with composted wood chips over the entire planting area to a depth of 2" with no mulch placed within 6" of trunk. Mulch inspection will take place quarterly for proper coverage and mulch shall be renewed in spring and fall.
 - b. Inspection and removal of damaged branches will take place quarterly.
 - c. Inspection and treatment for insect infestations will take place quarterly.