

Section 2611. Furnish and Install Shrubs and Trees with Warranty

2611.01 DESCRIPTION.

- A.** Furnish and install tree and shrub materials of the type, class, species, grade, and size specified in the contract documents. The requirements in [Section 2610](#) do not apply to this work unless stated otherwise in this specification.
- B.** The Contractor has the option to use the provisions of [Articles 2610.03, A; 2610.03, D; 2610.03, E; or 2610.03, F](#) as a guideline for planting techniques to enhance survivability of plant materials, at no additional cost to the Contracting Authority.
- C.** The contract period for this work is two growing seasons for all plants.

2611.02 MATERIALS.

Meet the requirements of [Section 4170](#).

2611.03 CONSTRUCTION.

Plant trees and shrubs and first year replacements between March 1 and May 15. Plant second year replacements between September 1 and September 30 for evergreens and between October 1 and November 30 for deciduous plants.

A. Plant Establishment Period and Replacement.

- 1.** The plant establishment period will be the first two growing seasons. The establishment period will begin when the last plant of the initial installation is planted and incidental work related to the plantings is complete.
- 2.** Use chemical methods to control competing vegetation in the entire mulched area throughout the contract period. Chemical methods to remove vegetation shall be applied by a Certified Pesticide Applicator - Category 6 (Right of Way).
- 3.** Obtain the Engineer's approval prior to applying pesticides and herbicides used for competing vegetation, insect, or disease control. Use pesticides and herbicides according to product label directions.
- 4.** Replace all plants that are not in a live, healthy, growing condition at the end of each of the first two growing seasons. Plant the replacement plants for the first growing season the following spring. Plant the replacement plants for the second growing season in the fall of that year. Ensure replacement plants are of the variety and size originally specified in the contract documents.
- 5.** The Contractor may salvage and reuse the original mulch for replacement plants. If the original mulch is not available, suitable, or salvageable for reuse, place new mulch around the replacement plants. The Contractor is responsible for replacement costs.

B. Inspection of Plant Materials.

- 1.** Verify correct species have been planted. Also verify compliance with ANSI Z60.1, American Standard for Nursery Stock.
- 2.** The Engineer will inspect the plant materials, staking and guying, and mulch after the initial installation or on May 16, whichever comes first. This includes the inspection for:
 - Size, number, location, alignment, and viability of plant materials,
 - Correct depth and area of mulch, and
 - Installation of stakes and guys as specified in the contract documents.
- 3.** In August of each year of the establishment period, identify all dead plants using tie-on plastic flagging, all of one color, in a location that is easily seen.
- 4.** By August 30 of each year, submit to the Engineer marked copies of the plant location plan sheets showing the number and species of replacement plants required for each location for

that year. Submit tabulations of the total number of replacement plants of each species on each plan sheet. Indicate the total number of replacement plants for the project.

5. The Contracting Authority will inspect the plant materials in the fall of each growing season. The Contracting Authority will verify, during this inspection, the number of living plants and determine if the correct species of plants were used.
6. The Contracting Authority will also inspect and verify any replacement plant materials after installation.

2611.04 METHOD OF MEASUREMENT.

Measurement will be as follows:

- A. Shrubs with the specified mulch: by count of live shrubs installed.
- B. Trees with the specified mulch: by count of live trees installed.

2611.05 BASIS OF PAYMENT.

- A. Payment will be the contract unit price for each Tree, Furnished and Installed according to the contract documents.
- B. Payment will be the contract unit price for each Shrub, Furnished and Installed according to the contract documents.
- C. For each time each species is requested for substitution, a \$250.00 price reduction will be charged. When substitutions are made, the Engineer will price adjust downward. No participation in price increases will be incurred.
- D. Payments will be made in increments according to the following schedule:
 1. **After Initial Installation is Complete.**
Sixty-five percent of the placed quantity will be paid for all live plants of each size and variety installed with the specified mulch, and meeting the staking and guying requirements. This payment will be made after the initial inspection by the Engineer.
 2. **End of the First Growing Season.**
 - a. Payment will be based on the total project's first year survival rate. Plants not in compliance with the contract documents will be considered dead.
 - b. A percent of the placed quantity will be paid for each tree and shrub correctly installed according to the schedule in Table 2611.05-1:

Table 2611.05-1: Payment, End of First Growing Season

Total Project Survival Rate	% of Placed Quantity
85 - 100%	10%
60 - 84%	5%
Below 60%	0%

3. **After First Year Replacement Installation.**
After replacement plants have been installed, 5% of the placed quantity will be paid for all plants considered alive at the end of the previous growing season including all plants replaced.
4. **End of the Second Growing Season.**
 - a. Payment will be based on the total project's second year survival rate. Plants not in compliance with the contract documents will be considered dead.
 - b. A percent of the placed quantity will be paid for each tree and shrub correctly installed according to the following schedule. Payment for plants requiring replacement will be after replacement is complete. Payment will be according to the schedule in Table 2611.05-2:

Table 2611.05-2: Payment, End of Second Growing Season

Total Project Survival Rate	% of Placed Quantity
85 - 100%	20%
60 - 84%	10%
Below 60%	0%

- E.** Payments are full compensation for:
- Furnishing all materials, equipment, and labor,
 - Performing all work necessary according to the contract documents including excavating, placing backfill, mulching, pruning of trees and shrubs, replacements, and
 - Methods used to ensure the survivability of the planted trees and shrubs.
- F.** When excavation is made in impervious soils or the excavation of a new planting well is directed by the Engineer, the Contractor will be paid for this extra work according to [Article 1109.03, B](#).