

**SECTION 32 93 15
LANDSCAPE PLANTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

This section includes requirements for the installation of the plant material.

1.02 RELATED SECTIONS

Section 02 41 20 – Existing Landscape Removals
Section 32 84 23 – Irrigation System
Section 32 90 20 – Landscape Maintenance

1.03 SUBMITTALS

- A. Furnish material invoices indicating the quantities of fertilizers, soil amendments, and all materials delivered to the job site. Material invoices must be approved by the Landscape Architect prior to incorporating soil amendments. Certificates shall be prepared by the supplier or distributor and shall indicate the quantities and qualities of materials used.
- B. Plant Material – Submit clear photos of all plant material specified taken and the source. Indicate plant material height and spread measured at the source. Photos must clearly show the plant quality and size. The Landscape Architect will determine if the photos meet the specifications and if further site inspection at the nursery is required or if another source is required to produce the specified plant material.

1.04 PROTECTION

- A. Contractor shall check or locate existing structures, electric cables or conduits, utility lines and other existing features or conditions above or below ground level that might be damaged as a result of the operation. Questions or conflicts arising out of such examination prior to or during operation shall be immediately directed to the attention of the District for necessary action or decisions before resuming operation. Contractor shall be responsible for repair or replacement at no cost to the District for features or conditions damaged through failure to comply with the above procedures.
- B. Protect existing trees and tree roots from any damage that may be caused as a result of any planting or irrigation operations.

1.05 ALTERNATES

Alternates will not be permitted, except where indicated, and as approved by the Landscape Architect.

1.06 LANDSCAPE ON-SITE OBSERVATIONS

- A. The Contractor shall notify the district and the Landscape Architect forty-eight (48) hours in advance for all required On-Site Observations. The final On-Site Observation shall require seven (7) days advance notice.
- B. The Contractor shall submit for approval a complete work schedule indicating tentative dates for On-Site Observations.
- C. Record drawings shall be current and present at the time of On-Site Observations and shall be updated on a weekly basis.
- D. Landscape On-Site Observations shall be required for the following phases of Work:
 - 1. Job start meeting.
 - 2. Finish grading - When all fine grading work is complete, notify the Landscape Architect for approval prior to proceeding with the planting.
 - 3. Soil Preparation - furnish certificates for soil amendments at this time. Quantities must be reviewed by the Landscape Architect prior to incorporating into soil. When all soil preparation work is complete notify the Landscape Architect for approval prior to proceeding with the work.
 - 4. Irrigation System Review - See Irrigation Section.
 - 5. Review plant material for quality prior to planting. The Landscape Architect has the right to reject any plant material that it deems unacceptable at time of delivery.
 - 6. Review planting during the planting process.
 - 7. Review planting after installation.
 - 8. Pre-maintenance - When all Work has been completed a pre-maintenance walk thru shall be conducted and the contractor must receive approval from the District prior to starting the maintenance period.
 - 9. Maintenance - Notify the District and the Landscape Architect after the maintenance period has progressed for thirty days for a review of all work and make all corrections that are deemed necessary.
 - 10. Final Review - After the ninety-day (90) maintenance period is complete notify the District and the Landscape Architect for a final review of all work. All work must receive approval from the District and the Landscape Architect prior to being deemed complete and or filing a notice of completion.

1.07 QUALITY

All plant material shall have a growth habit normal to the species and shall be sound, healthy, vigorous, and free from insect pests, plant diseases, sun scalds, fresh bark abrasions, excessive abrasions, or other objectionable disfigurements. Tree trunks shall be sturdy and well "hardened off." All plants shall have normal well-developed branch systems, and vigorous and fibrous roots systems which are neither root- nor pot-bound and are free of kinked or girdling roots.

1.08 GUARANTEE

All plant material shall be guaranteed for one year. This guarantee is in addition to, and not a limitation of, other rights the District may have under the Contract Document.

PART 2 PRODUCTS

2.01 MATERIALS – LANDSCAPE

- A. Trees: varieties, sizes, and quantities, as noted on plans.
- B. Tree Stakes: Tree Stakes shall be 2" diameter Lodgepole pine, pressure treated with Chemonite (ACZA) @ .40 pounds per cubic foot, for in-ground rating. Stakes shall be 10 feet long. Horizontal supports shall be 1x6 cedar.
- C. Tree Ties: Tree Ties shall be virgin flexible vinyl, meeting ASTM-D-412, with U.V. inhibitor. 24" inches long. (Cinch Ties of eq.)
- D. Soil Amendments: Organic soil amendment shall be Agromin "Agromend," or equal.
- E. Shrubs: varieties, sizes and quantities as noted on the plans.
- F. Pre-Emergent Herbicide. Once planting operations and fine grading work has been completed, apply a preemergence herbicide over the exposed soil surface prior to the installation of both weed fabric and mulch. Apply the preemergence as required by the manufacturer's specifications and application instructions.
- G. Mulch shall be Del-Rio 3/8 Inch rock. Finish grade soil in all planters to a smooth uniform surface suitable for both weed fabric and mulch installation. Install weed fabric first then cover weed fabric with a two-inch layer of mulch throughout specified planting areas. Keep mulch away from direct contact with both shrub and tree crowns. Dress mulch areas to present a clean, uniform appearance when completed.
- H. Weed Fabric: Mirafi model 'Mscape' install on all shrub and mulch covered planting areas. Secure fabric to soil using 6" long metal soil staples spaced 5'-0" o.c. in a triangular pattern.

2.02 SOIL AMENDMENTS

- A. Pre-plant amendments to be incorporated into the top 6 inches of soil throughout all planting areas:
 - 1. Organic Amendments – 6 cu. yds. per 1,000 sq. ft.
 - 2. Soil Sulfur – 25 lbs. per 1,000 sq. ft.
 - 3. Nitrogen Fertilizer – 1.1 lbs. per 1,000 sq. ft.
 - 4. Iron (Fe) – 0.10 lbs. per 1,000 sq. ft.
 - 5. Boron (B) – 0.01 lbs. per 1,000 sq. ft.

- B. Tree and Shrub backfill mix:
 - 1. Native Site Soil – 66%
 - 2. Organic Amendments – 33%
 - 3. Commercial Fertilizer (15-15-15) – 1.0 lbs. per cu. yd.
 - 4. Iron – 2.0 oz per cu. yd.
 - 5. Zinc – 1.0 oz per cu. yd.
 - 6. Manganese – 1.0 oz per cu. yd.

2.03 ROOT BARRIERS

Shall be linear barriers 24" deep by 2 feet long attached to the length as per plan; manufactured by Deeproot or equal.

2.04 METAL EDGE

The metal edge material between the decomposed granite paving and the planting area shall be 1/8" X 4" black powder coated steel edging as manufactured by the J D Russel Company or equal.

PART 3 EXECUTION

3.01 SITE CONDITION

No plant materials shall be planted until all operations in conjunction with the installation of the irrigation system have been approved by the District and the Landscape Architect. Final grades shall be established, and the planting areas shall be properly prepared and graded.

3.02 GROUND PREPARATION – ALL AREAS

- A. After the Site Clearance and Preparation has been approved by the District, planted areas shall be thoroughly cultivated to a depth of six inches to reduce any compaction, which occurs as a result of construction. Protect existing tree roots.
- B. Stones or rocks over 1" in size, construction refuse, and other deleterious material shall be removed from the site, safely and legally disposed of.
- C. Apply soil preparation materials to all planting areas and thoroughly incorporate into the top six inches of soil or as directed by soil scientist report.
- D. Wet soil thoroughly and allow to settle. Repeat this compaction procedure until soil is stable enough to permit aeration and drainage for plant material.
- E. Finish grade all planting areas to a smooth, uniform surface ready for planting. Finish grade shall be one inch below finish grade of adjacent paved surfaces unless otherwise noted on Drawings.

3.03 TREE STAKING

Stake each tree with four lodge pole stakes, firmly set into the grade and in alignment forming a square. Secure the four poles with 1x6 cedar horizontal supports, attach with deck screws. Secure tree trunk with cinch ties.

3.04 PLANTING – TREES & SHRUBS

- A. Trees and shrub planting shall comply with details on drawings.
- B. Make necessary adjustments and excavate pits of square outline and vertical sides for all plants. Scarify sides and bottoms of all plant pits. Set trees vertical.
- C. Protect roots or ball of plants at all times from sun and drying winds.
- D. If directed by the Landscape Architect, the Contractor shall prune plants in accordance with standard horticultural practice.
- E. Wet soil thoroughly and allow to settle. Repeat this compaction procedure until soil is stable enough to permit aeration and drainage for plant material.

3.05 ROOT BARRIER

Install tree root barriers in the total lengths as shown on the plans and details. The vertical root deflecting ribs shall be facing inwards to the rootball, and the double top edge shall be set 2 inches above the finish grade. Panels shall be connected with the flexible joiner strips to the required overall length. Install panels straight, uniform in a vertical position.

3.06 MULCH

Install two-inch layer of mulch throughout shrub areas where indicated on the plan.. Finish grade shrub areas to a smooth uniform surface to receive mulch. Keep mulch away from tree and shrub crown. Dress mulch areas to present a clean uniform appearance when complete.

3.07 LANDSCAPE WEED FABRIC

Applied throughout all planting areas. Overlap fabric six inches and staple with 6-inch galvanized staples at 24 inches along the border and 36 inches in the field. Cut out just enough room for the shrub and tree planting pit. Secure the fabric around each planting pit with staples.

END OF SECTION 32 93 15