

## PART 1 GENERAL

### 1.01 DESCRIPTION

#### A. Scope Of Work

The work includes labor, equipment, and materials necessary for existing tree protection and trimming.

### 1.02 RELATED WORK

#### A. Related Work Specified Elsewhere

Coordinate related work specified in other parts of the Project Specifications, including but limited to the following:

1. Site Preparation
2. Grading, Embankment, and Backfill
3. Demolition
4. Site Improvements

### 1.03 QUALITY ASSURANCE

#### A. Standards

Code of Standards of the American Association of Nurserymen in the American Standard for Nursery Stock and National Arborist Association Standards for Pruning and Buying of Shade Trees.

### 1.04 PROJECT CONDITIONS

#### A. Existing Conditions

1. Carefully examine the site before submitting a bid. Be informed of the site conditions including adjacent properties, utilities, and soil conditions.
2. Should the Contractor find any discrepancies between Drawings and physical conditions, inform the Owner's Representative and Landscape Architect immediately for clarification.

### 1.05 TREE PROTECTION

- #### A. Protect all trees and other plant material scheduled to remain. Do not park any vehicles or equipment, store materials or stockpiled soil, dispose of building materials, chemicals, petroleum products, or other detrimental substances within limits of tree protection fencing of any existing tree to remain. Protect existing trees from flame, smoke, and heat. Construction access to site shall not occur beneath drip line of existing trees until special provisions have been met to protect all existing vegetation to remain. The Contractor shall be responsible for all damage to existing trees and plant material during construction. All clearing and grubbing or excavation within limits of tree protection fencing shall be done by hand methods.

- B. Provide protective temporary fencing during the work as necessary to protect existing vegetation to remain.

#### 1.06 FAILURE TO PRESERVE TREES

- A. Trees that are designated to remain, which become damaged or die, shall be reviewed by the Owner's Representative prior to tree replacement. (NOT INCLUDING SIGNIFICANT TREES.).
- B. If the Contractor damages or destroys an existing tree, shrub and/or groundcover which he/she has been directed to preserve due to failure to comply with Specifications and Drawings, the Contractor shall replace it with trees at twelve (12) foot height, shrubs at twenty-four (24) inch height and groundcovers at one (1) gallon containers spaced at eighteen (18) inches on center with same plant species, size and grade, with a healthy tree and/or shrub acceptable to the Owner, and the contractor shall guarantee that the tree, shrub and/or groundcover shall live for a period of one (1) year from Owner's Acceptance.
- C. The Owner shall charge the Contractor damages to any **SIGNIFICANT EXISTING TREE** (twelve (12) inch caliper and larger) as measured 3' above lowest grade immediately adjacent to said tree. The Owner shall charge the Contractor at the rate of one hundred (100) dollars per square inch of damaged area. The following are examples of damage to a tree above and below ground surface: scrapes and other abrasions penetrating to the cambium layer of the main or lateral stem, splits in the bark and between main stem and lateral stems, rips, shredding, gouges, cuts, avulsions of tree parts, and dents. The calculated value of the significant tree, as described above, shall be deducted from the contract amount. It is the Contractor's responsibility to notify the Owner immediately after damage has occurred.
- D. The Owner shall charge the Contractor the following rates for destroyed existing trees, which cannot be replaced: \$100.00 per square inch of cross sectional area measured three (3) feet above existing grade for trees up to and including six (6) inch caliper; and at the rate of \$200.00 per square inch of cross sectional areas measure three (3) feet above existing grade for trees between seven (7) to eleven (11) inch caliper. This amount shall be credited to the Owner. (NOT INCLUDING SIGNIFICANT TREES TWELVE (12) INCH CALIPER AND LARGER).
- E. Remove any damaged and destroyed trees from the site. All trees are not to be removed unless evaluated by the Landscape Architect prior to being cut down and removed from the site. Grub stumps and repair the ground surface. All costs shall be borne by the Contractor.

## PART 2 PRODUCTS

### 2.01 PRODUCTS AND EQUIPMENT

- A. As required for work involved.

### PART 3 - EXECUTION

#### 3.01 PREPARATION

##### A. Flagging Of Existing Trees

1. Flag existing trees to be removed with a bright colored ribbon. Notify the Owner's Representative and the Landscape Architect at least 48 hours prior to commencing of work to verify all existing trees that are flagged for removal.
2. Do not park any vehicles or equipment, store materials or stockpiled soil, dispose of building materials, chemicals, petroleum products, or other detrimental substances within limits of tree protection fencing of any existing tree to remain. Protect existing trees from flame, smoke, and heat. Construction access to site shall not occur beneath drip line of existing trees until special provisions have been met to protect all existing vegetation to remain.

#### 3.03 EXISTING TREES TO REMAIN

##### A. GENERAL

1. Restrict foot and vehicular traffic over root systems to prevent excessive compaction of soil.
2. Existing individual trees and planting areas, shown on the Drawings to remain, shall be protected by a temporary six (6) foot high chainlink fence. Install fencing demolition before site preparation, grading, clearing, and grubbing operations.
3. Under no circumstances shall the Contractor, for the convenience or ease of construction, remove or damage existing trees designated to remain.
4. Prior to installation the location of the chainlink fencing around the existing trees to remain shall be reviewed by the City Arborist prior to demolition.

##### B. EXCAVATION AROUND TREES

1. Excavate by hand within limits of tree protection fencing of the existing trees to remain.
2. Where trenching for utilities and irrigation pipe is required within limits of tree protection fencing, tunnel under or around roots by hand digging. Do not cut main lateral roots or tap roots. The Contractor shall notify the Landscape Architect prior to cutting roots over one (1) inch in diameter. Roots up to and including 3/4" shall be cut by hand pruners. Roots above 3/4" shall be cut by hand saws. Do not leave roots exposed to sun or drying for more than 24 hours. Protect all exposed roots with minimum four (4) inches of moist organic mulch or burlap, and backfill as soon as possible.
3. Where excavating for new construction is required within limits of tree protection fencing, excavate by hand to minimize damage to roots and perform as follows:
  - a. Use narrow tine spading forks and comb soil to expose roots.

- b. If main lateral roots are immediately adjacent to location of new construction, the Contractor shall notify the Owner's Representative prior to any excavation.
- c. Do not allow exposed roots to dry out before permanent backfill is placed.
- d. Provide temporary earth cover and/or moist organic mulch, or pack with peat moss and wrap with burlap.
- e. Water and maintain in moist condition until covered with backfill.

### 3.04 PRUNING/TRIMMING OF EXISTING TREES

#### A. REMOVAL AND PRUNING

1. Removal and pruning shall be accomplished in such a manner as not to damage existing utilities, landscaping or other permanent improvements to remain. Any damage to existing improvements shall be repaired or the item replaced or otherwise restored to the satisfaction of the Owner's Representative and Owner at the Contractor's expense.
2. Where shown on plans, or where designated by these Specifications or the Owner's Representative and the City Representative, the Contractor shall utilize an International Society of Arboriculture Certified Arborist to carefully and skillfully trim, prune and remove extraneous limbs, growth, brush or vegetation adjacent to the work to facilitate construction in such a manner as to enhance the appearance of the plantings without disfiguring them. All trees and shrubs designated to remain shall be pruned per ANSI-A300 1995 Plant Maintenance Standards as indicated on the "Tree/Shrub Pruning Detail".
3. Contractor may grind up all limbs, brush, trimmings, debris, etc. and miscellaneous organic matter into medium course organic mulch per Section 02915 of these specifications. Spread on site (in non-planted areas) under field direction of the Owner's Representative or remove from site. (Contractor's Option).

END OF SECTION