



**SPECIAL PROVISIONS  
FOR  
LANDSCAPE PLANTINGS**

**Johnson County  
STP-U-5557(618)--70-52**

**Effective Date  
February 20, 2018**

**THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**PART 1 GENERAL**

**1.01 WORK INCLUDED**

The Contractor shall furnish all labor, materials, tools, equipment, supervision, and services necessary to install plant material, seed, preparation of soil, fine grading, planting, mulching, guying, pruning, watering, and the proper disposal of any excess earth or debris, extended maintenance all in accordance with the contract documents.

**1.02 QUALITY ASSURANCE**

**A. Regulatory Requirements**

1. Comply with applicable requirements of Federal, State, and Local laws, regulations and codes having jurisdiction at the project site. The Contractor shall take out all required permits, arrange for all necessary inspections and shall pay any fees and expenses in conjunction with the same as a part of the work under this section.
2. Contractor shall be responsible for certificates of inspection of plant material that may be required by Federal and Local authorities to accompany shipments of plants.
3. The entire installation shall fully comply with all local and state laws and ordinances and with all the established codes applicable thereto.

**B. Reference Standards**

1. "Standardized Plant Names" by the American Joint Committee of Horticultural Nomenclature.
2. "American Standard of Nursery Stock" by the American Association of Nurseryman current edition. Standards: All plant materials, methods, etc., are to conform to the Standards of the American Association for Nursery Stock. In the event there is a discrepancy between these standards and this Specification, the most restrictive requirement shall govern.
3. Nomenclature: The names of plants required under this Contract conform to those given in the "Standardized Plant Names", current edition, prepared by the American Joint

Committee on Horticultural Nomenclature. Names of varieties not included therein conform generally with names accepted in the nursery code.

4. American National Standards Institute (ANSI); Publication Z60.1-current edition.
5. Condition and Source of Plants shall be subject to inspection and approval by the Engineer at place of growth and upon delivery for conformity to Specifications. Such approvals shall not impair the right of inspection and rejection during progress of the Work. All plant material shall be hardy stock grown in a similar hardiness zone for a minimum of 2 years.

C. Coordination

Work in conjunction with other trades as directed, taking all reasonable precautions to avoid disturbance or interference with any other operation or installation on the site. Contractors shall be responsible for the cost of replacing any material damaged as a result of his/her negligence.

D. Points of Inspection: The Contractor shall notify the Engineer at least 5 days prior to start of work, inspections, or delivery to the Project Site to allow for inspection scheduling for each of the following work activities listed below. The notice must be sent via confirmable email or facsimile transmission to the Engineer.

1. Layout/Staking of Planting Beds and Limestone Edging: Refer to PART 3 –Section 3.2 for requirements.
2. Planting Bed Preparation: Refer to PART 3- Section 3.2 for requirements.
3. Seed Bed Preparation: Refer to PART 3 –Section 3.4 for requirements.
4. Plant Stock Delivery: Refer to PART 1- Section 1.5 for requirements
5. Balled and Burlapped Tree Planting: Refer to PART 3 – Section 3.2 for requirements.
6. Plant Installation: Refer to PART 3 –Section 3.2 for requirements.
7. Seed Installation (Initial and Final Inspection): Refer to PART 3 –Section 3.4 for requirements.
8. Initial Project Acceptance: Refer to PART 3 –Section 3.7 for requirements.
9. Final Project Acceptance: Refer to PART 3 –Section 3.7 – The Contractor shall submit a written request to the Landscape Architect for site inspection at least fourteen (14) days before the anticipated date of inspection.

### 1.03 SUBMITTALS

- A. General: Submit the following in accordance with conditions of the contract.
- B. Product Data: Contractor shall submit in writing to the Engineer at least 30 days prior to start of the work the source and supplier of all plant material, seed, fertilizer, rock mulch, soil amendments and other materials along with the type of equipment to be used on this project. Plant material shall comply with the proposed planting schedule, indicating the type, size, and quantity of each species.
- C. Grower's Certificates: Proof of certification of Nursery Stock Grower and Dealer Inspection as well as any other certificates required by governmental authorities.
- D. Fertilizer Manufacturer's Certificate of Compliance: Written documentation verifying compliance with chemical analysis of fertilizer furnished. Submit to Engineer 5 days prior to delivery.
- E. Substitutions: Substitutions of plant material will not be permitted unless authorized in writing by the Engineer. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of Contract Price. Such proof shall be substantiated and submitted in writing to the Engineer at least 30 days prior to start of the work under this specification. These provisions shall not relieve the Contractor of the responsibility of obtaining specified

materials in advance if special growing conditions or other arrangements must be made in order to supply specified materials.

- F. **Planting Schedule:** Proposed planting schedule, indicating dates for each type of landscape work during normal seasons for such work in area of site. Once accepted, revise dates only as approved in writing, after documentation of reasons for delays. Field Potted or Container Grown perennials and ornamental grasses shall be planted only when the ground is not frozen, snow covered, or in an otherwise unsuitable condition for planting. Spring planting shall generally may occur as soon frost is absent from the ground until June 15, and fall planting shall generally occur between August 15 and November 15.
- G. **Maintenance Instructions:** Typewritten instructions recommending procedures to be established by Contracting Authority for maintenance of landscape work during the 1 year warranty period.

#### **1.04 STORAGE, HANDLING, AND DELIVERY**

- A. **Storage of Materials**  
All materials delivered to the job shall be stored so as to keep them in new condition and free from deterioration. Peat moss, fertilizer, etc., shall be stored in temporary sheds off-site at Contractor's expense.
- B. **Packaged Materials**  
Deliver packaged materials in unopened containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.
- C. **Pre-planting:** Plants shall be brought to the site the day they are to be installed, if possible. If situations arise where earlier delivery cannot be avoided or if planting is delayed after the plants have been delivered, they shall be stored where they can be properly watered, sheltered from direct sunlight, and protected from mechanical damage by construction equipment, animals, etc. If storage needs to be more than two days, the plants shall be separated far enough from each other to provide good air circulation to their tops, reducing the risk of fungus. Bare root plants which must be held shall be healed-in where they can be watered as needed.
  1. All plants shall be watered thoroughly and allowed to drain prior to planting.
  2. While planting, bare root plants must be protected from hot sun and drying wind by shading them with burlap, landscape fabric, straw, or other breathable material. Plastic is unacceptable.
  3. Containerized plants must be left in their containers until each is planted. They shall not be removed from the containers to be laid out on the bed where sun and wind will damage the roots prior to planting.
  4. Any dead or damaged plant parts shall be removed from the plants upon planting.
- D. **Plant Material**  
Plants and seed shall not be delivered to the site until the corresponding beds are fully prepared and approved. Vegetated material shall be inspected as required by Local, State, or Federal laws, and upon delivery at premises shall be subject to inspection by the Engineer. All materials must arrive with identification labels calling out the size and species name. All plant material is subject to rejection by the Engineer either at time of delivery or after planting, provided it does not comply with the requirements stated herein. Delivered trees with more than 4inches of soil over the root flare shall be rejected. If after carefully removing the soil over the trunk flare unveils encircling roots and/or unhealthy conditions the tree will be rejected. The Engineer may open

soil balls or containers to inspect for root condition, size, balance, and trunk location within the ball. Any rejected stock shall be immediately removed from the premises and replaced with approved stock.

#### **1.05 JOB CONDITIONS**

- A. Examination of Site:  
The bidder must acknowledge that he has examined the site, plans and Specifications and the submission of a quotation shall be considered evidence that examinations have been made.
- B. Field Conditions:
  - 1. The Contractor shall verify drawing dimensions with actual field conditions and inspect related work and adjacent surfaces. The Contractor shall report to the Engineer all conditions which prevent proper execution of this work. The Contractor agrees to be fully responsible for any and all damage which might be occasioned by the Contractor's failure to exactly locate and preserve any and all utilities, structures, and geogrid reinforcement.
  - 2. Soil moisture must be at or below field capacity to avoid destroying the soil structure before any work begins.

#### **1.06 SEQUENCING/SCHEDULING**

- A. Planting Time: Proceed with and complete planting as rapidly as portions of the site become available, working within seasonal limitations for each kind of landscape work required.
- B. Planting Dates:
  - 1. Trees, shrubs, and perennials shall be planted only when the ground is not frozen, snow covered, or in an otherwise unsuitable condition for planting. Spring planting shall generally occur between April 1 and June 15, and fall planting shall generally occur between August 15 and November 15.
  - 2. Recommended dates for seeding shall be April 1 to May 31 for spring planting and August 15 to September 30 for fall planting. Dormant seeding shall be November 1 to March 31.

#### **1.07 MATERIALS CLEAN-UP**

The Contractor shall keep the premises free from rubbish and all debris associated with their work at all times and all unused materials and debris shall be removed from the site.

#### **1.08 MEASUREMENT AND PAYMENT**

- A. Trees, shrubs, ornamental grasses and perennials (installed with warranty):
  - 1. Measurement will be by count of each type installed.
  - 2. Payment will be the contract unit price for each tree, shrub, ornamental grass and perennial (installed with warranty) installed in accordance with the contract documents. Payment is full compensation for fertilizer, pre-emergent weed preventer, and staking and guying.
- B. Limestone Edger:
  - 1. Measurement will be to the nearest linear foot.
  - 2. Payment will be the contract unit price per linear foot installed in accordance with the contract documents. Payment is full compensation for layout, removal and disposal of soil necessary for proper placement, and installation of compacted limestone chip subbase.

- C. Remove and Reinstall Limestone Edger:
1. Measurement will be to the nearest linear foot.
  2. Payment will be the contract unit price per linear foot installed in accordance with the contract documents. Payment is full compensation for removal, salvage and protection of existing limestone edger, layout for reinstallation, removal and disposal of soil necessary for proper placement, and installation of compacted limestone chip subbase.
- D. Amended Soils:
1. Measurement will be by cubic yard, based on the depth as specified in the contract documents, over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required dimensions.
  2. Payment will be the contract unit price per cubic yard for amended soil mixed and placed in accordance with the contract documents. Payment is full compensation for excavation, mixing and placing soil, and preparation of beds with final shaping and fine grading prior to planting operations.
- E. Decorative Rock Mulch:
1. Measurement will be by ton, to the nearest 0.1 ton. Only material placed according to the contract documents will be measured.
  2. Payment will be the contract unit price per ton.
- F. Watering for Plants
1. Measurement will be counting loads from a transporting tank of known volume or by metering.
  2. Payment will be the contract unit price per 1,000 gallons. Payment is full compensation for furnishing all materials, equipment, tools and labor necessary to complete the work according to the contract documents, including mobilization and traffic control.

## **PART 2 MATERIALS**

### **2.01 TOPSOIL**

- A. Refer to. A surplus of topsoil for this project is anticipated. The Bid Item Amended Soil shall assume the topsoil is available on-site. Amending and placement of the topsoil is incidental to the bid item.
- B. Treatment of Saline Soil: Saline soil shall be leached out by a controlled amount of water sufficient enough to leach the salts to a level below the root zone. Water used for this purpose shall have a low salt content.

### **2.02 AMENDED SOIL**

- A. The Amended Soil bid item reflects the following enrichment to topsoil in all areas where trees, shrubs and plants will be planted.
- B. All areas indicated to receive plant material shall receive a minimum of 18 inches of planting soil, unless otherwise noted on plan. If specified topsoil is in place, amend the top 18 inches to conform with this specification.
- C. Planting soil for planting holes and beds shall consist of peat thoroughly mixed with the in place cultivated soils. Peat shall be a domestic product consisting of partially decomposed vegetable matter of natural occurrence; black, clean, granulated, or shredded. Soil excavated from planting pits that is similar in nature to topsoil and is determined to be suitable for planting soil shall be thoroughly mixed with one part of peat to five parts of existing soil.

- D. Very poor soils of clay, gumbo, gravel, hard-pan, or other soils injurious to plants shall not be used.
- E. If quantity of soil excavated from planting pits is not adequate for planting, furnish planting soil consisting of partially decomposed vegetable matter of natural occurrence black, clean, low in content of mineral or wood material, mildly acidic, fertile, and friable. Mix with one part of peat to five parts of soil.
- F. Dispose of soil excavated from planting hole that is determined not to be of quality required or is not needed to be used for planting soil.
- G. Planting bed soil mix shall be prepared in the following proportions, unless otherwise noted on plans:
  - 1. Topsoil: 1 part volume
  - 2. Peat: 1 part volume
  - 3. Sand: 1 part volume
  - 4. Fertilizer: 3 pounds per cubic yard of soil.

### **2.03 FERTILIZER**

- A. All fertilizers shall be horticultural grade complete formula fertilizers and shall conform to the applicable State Fertilizer Laws. Fertilizer shall consist of uniform dry granulated nutrients produced by mining and manufacturing processes and commonly used in the agricultural or lawn care industries. It shall contain the three major plant nutrients of nitrogen, phosphorous, and potassium. Commercial fertilizer may be furnished as a homogenous or blended form. Submit product information for Engineer's approval.
- B. Slow release fertilizers: A minimum of 70 % of the nitrogen component shall be a slow release water insoluble nitrogen.

### **2.04 PRE-EMERGENT WEED PREVENTER**

- A. All pre-emergent weed preventers shall be an herbicide combination such as isoxaben/trifluralin (Snapshot), oryzalin/benfin (XL2G), oxyfluorfen/oryzalin (Rout), and oxyfluorfen/pendimethalin (Ornamental Herbicide 2). Check the label to determine which ornamental species the material can safely be used around and which species of weeds are controlled.
- B. Submit pre-emergent weed preventer for approval.

### **2.05 PLANT MATERIALS**

- A. Plant Schedule: A list of plant materials is scheduled on the plans. In the event of any discrepancy between this schedule and the plans showing the plants, the plans shall govern.
- B. Certification of inspection of plant materials required by Federal, State, or other governmental agencies to accompany all shipments to be furnished to the Engineer.
- C. Planting stock shall be well-branched and well formed, sound, vigorous, healthy, free from disease, sun-scale, windburn, abrasion, and harmful insects or insect eggs; and shall have healthy, normal unbroken root systems. Deciduous trees and shrubs shall be symmetrically developed, of uniform habit of growth, with straight trunks or stems, and free from objectionable disfigurements. Evergreen trees and shrubs shall have well-developed symmetrical tops with typical spread of branches for each particular species or variety. Evergreen trees and shrubs shall not be sheared. Plants shall

have been grown under climatic conditions similar to those in the locality of the project.

- D. Stock Sizes: All stock measurements - caliper, height, branching level, number of canes, ball sizes shall be in strict accordance with the latest edition of the American Standard for Nursery Stock, unless otherwise noted on the plans. Plants used on the project shall meet or exceed all minimum requirements indicated in the size, condition, and remarks sections of the planting legend on the plan sheets.
- E. All stock shall be balled and burlapped or container grown stock. Bareroot stock of any kind is unacceptable. Spade or box trees are acceptable on greater than 4inch caliper and 10foot to 12 foot/16foot to 18 foot height trees
- F. All plant material must be watered the same day it is planted in order to comply with these Specifications.
- G. Trees that need to be staked and guyed shall be installed as shown on plans.

## **2.06 ROCK MULCH**

- A. 1 1/2 inch diameter lava rock for all planting areas. Colors shall be black, red and black/red mix. Submit sample to Engineer for approval.
- B. See plans for depth and location of colored lava rock mulch.
- C. Lava Rock supplier, or approved equal:  
Colorado Lava  
4000 US-285  
Antonito, CO 81120  
(719) 376-5929
- D. Weed barrier shall not be installed.

## **2.07 GUYING AND STAKING MATERIALS**

- A. Stakes for tree support shall be steel "T" bar fence post, 8 feet long, painted dark green with the top 6 inches painted white.
- B. Tree tie systems shall be easily adjustable, strong in all weather, and easily attached and removed. See details on plans.

## **2.08 BED EDGING**

- A. Where indicated on the plans and details, provide and install Iowa Buff, or approved equal, limestone edging in 4 inch by 6 inch by 18 inch to 30 inch lengths.
- B. Submit a sample for approval.
- C. Layout of edging shall be staked and approved prior to installation.

## **2.09 WATER**

- A. Water shall be provided by the Contractor.

- B. Incidental to watering shall be traffic control, equipment, materials, tools, and labor needed to successfully water the entirety of the planted areas in accordance with the contract documents.
- C. Each watering shall consist of a gentle application of 1/2 inch depth of water, evenly distributed in a manner that does not displace plants, soil or rock mulch.
- D. The initial watering shall occur not less than 4 hours after planting.
- E. Water shall not contain elements toxic to plant life. It shall be the Contractor's responsibility to obtain water to be used for watering of plant material.

### **PART 3 EXECUTION**

#### **3.01 CLEARING**

- A. All planting bed areas and areas of turf establishment are to be cleared by the Contractor.
- B. Clearing shall consist of the satisfactory removal and disposal of brush, rubbish, and other vegetative growth occurring within all proposed turf and planting bed areas unless turf is being overseeded. All debris associated with this work shall be gathered and removed from the project by the Contractor.

#### **3.02 TREE, SHRUB, AND PERENNIAL INSTALLATION**

- A. All planting shall be performed by personnel familiar with the accepted procedure of planting and under the constant supervision of a qualified planting foreman.
- B. All planting is to be done as shown on plans and as specified herein and in strict accordance with standard horticultural practices.
- C. Preparation of Planting Mixture and Beds:
  - 1. Plant material locations and planting bed outlines shall be staked on the project site by the Contractor and approved by the Engineer before any plant pits or beds are excavated. Plant material locations and bed outlines may be adjusted by the Engineer to meet field conditions.
  - 2. Mix recommended soil amendments and fertilizers with topsoil at recommended rates. Delay addition of fertilizer if planting mixture will not be used within 2 days. Treat the freshly prepared plant beds with a pre-emergent weed preventer per manufacturer's application instruction for the approval product.
  - 3. Planting beds shall be cultivated to a minimum depth of 18 inches.
  - 4. The Contractor shall be responsible for testing percolation rates to measure adequate drainage in the planting area. Where trees, shrubs, or perennials are planted a test bed shall be prepared with the location selected by the Engineer. A percolation test shall be conducted by filling a 16 inch deep planting hole with water and measuring the time it takes for the water to drain. Adequate drainage will be considered equal to or greater than a percolation rate of 1/2 inch per hour. In case of inadequate drainage, the Engineer shall be notified. Beds shall be free of rocks larger than one inch diameter, weeds, scrap material, and objectionable materials. Beds shall also demonstrate proper incorporation of soil additives.
- D. Installation of Trees, Shrubs and Perennial.



1. Planting pits shall be excavated to produce vertical sides and flat bottoms. Scarify side walls to alleviate glazing and loosen any hard subsoil in bottom of pit. Minimum pit sizes shall be as shown on plans.
  2. Dispose of all subsoil, clay, and rock (off-site) removed from planting excavations. The top 6 inches of topsoil excavated from the planting pit, if free from subsoil, clay, rocks, roots, or other debris, may be utilized in the topsoil mixture as specified.
  3. Setting Plants
    - a. The Contractor shall install the first balled and burlapped tree with the Engineer present to ensure proper planting methods. Refer to planting details and specifications for the proper planting procedure of hole preparation and removal of all twine, burlap, wire cage and other trappings of the root ball. Root ball crowns shall also be set so that they are 2 inches higher than the surrounding grade to ensure the root flare is slightly above grade.
    - b. Balled and burlapped and container grown plants shall be handled and moved only by the ball or container. Remove the bottom of the wire cage and burlap before placing root ball in the ground. Plants shall be set plumb and held in position until a sufficient quantity of planting soil mixture has been firmly placed around roots or ball. Once the tree is stabilized in the planting hole, carefully remove the sides and remainder of the wire cage, burlap, twine, and all other trappings before backfilling.
    - c. The remainder of backfill of planting soil mixture shall be tamped and watered.
    - d. Container-grown stock shall be removed from containers without damaging plant or root system. Planting shall be completed as specified for balled or burlapped plants.
  4. Pruning: The Contractor shall prune new plant material in the following manner: Dead and broken branches shall be removed. Evergreen plants shall not be thinned out or sheared. Shrubs shall not be sheared. All plants shall meet or exceed the minimum requirements indicated in the size, condition, and remarks sections of the planting legend on the plan sheets after pruning has taken place. Cuts shall be made with sharp instruments and shall be in compliance with ANSI A300 Pruning Standards. "Headback" cuts at right angles to line of growth shall not be permitted. All trimmings shall be removed from the site. Pruning shall be considered incidental to the overall project. No additional compensation shall be allowed.
  5. Initial inspection of the planting to determine completion of contract work, exclusive of possible replacement of plants, will be made by the Engineer upon completion of the work. All plants shall be alive, healthy and in a vigorous growing condition at the time of initial acceptance. The Contractor shall notify the Engineer when initial installation is complete.
- E. Lava Rock Mulch  
The top of all areas of mulch cover shall be 1 inch below the top of adjacent curb, walk, limestone edger or edge of pavement.
- F. Watering:
1. Complete watering in accordance with Section 2610 of the Standard Specifications with modifications as follows: Provide watering 3 days per week for 4 consecutive weeks, totaling twelve waterings. Each watering shall consist of a gentle application of 1/2 inch depth of water, evenly distributed over the entirety of all planting bed and sod areas in a manner that does not displace plants, sod, soil or rock mulch.
  2. The Contractor may install a temporary irrigation system at his/her expense. Contractor shall furnish hoses, meters and other watering equipment as required for supplemental watering.

### **3.03 WARRANTY AND REPLACEMENT**

- A. Plant material shall be warrantied for 1 full year after initial Engineer acceptance and shall be alive, in good health, and in satisfactory condition at the end of warranty period.
- B. Any plant required under this Contract that is dead or not in a vigorous, thriving condition, as determined by the Engineer at the time of final inspection, will be removed from the site.
- C. Plants that are missing at the time of final inspection are to be installed during the specified planting season when weather and site conditions permit.
- D. In case of any questions regarding the condition and satisfactory establishment of a rejected plant, the Contractor may elect to allow such plant to remain through another complete growing season. If at that time the rejected plant is found to be dead, or in an unhealthy or badly impaired condition, it shall be replaced.
- E. After initial acceptance, replace plants (once during or at the end of the warranty period) that are observed to be dead or in a badly impaired condition. One replacement after initial acceptance shall constitute fulfillment of Contractor's guaranty for the particular plant replaced.
- F. Replacement Plants: Plants of the same kind and size as specified in the Plant Schedule; furnished and planted as specified herein. Guyed or staked, mulched, fertilized, pruned, and restored to original condition as originally specified at no cost to Contracting Authority.
- G. Seeded areas shall be guaranteed by the Contractor for 1 year to establish a dense cover as specified above.
- H. Replacement cost shall be borne by Contractor except for possible replacements resulting from loss or damage due to occupancy at project in any part, vandalism, civil disobedience, acts of neglect on the part of others, physical damage by animals, vehicles, fire, or losses due to curtailment of water by local authority, or to "Acts of God". Droughts, floods, tornadoes, winds of hurricane force, and hail are not normal and the damage they do cannot be calculated in a bid.

### **3.04 ACCEPTANCE**

- A. Planting and seeding acceptance shall be based upon the following criteria:
  - 1. All requirements for the completed installation and maintenance have been provided.
  - 2. Clean-up operations are completed.
  - 3. Plants shall be well-branched and well-formed alive, healthy, and in a vigorous growing condition at the time of final acceptance.
  - 4. Seeded areas shall have a dense uniform stand of lawn/grass free of weeds and disease growing on not less than 95 % of the overall area and with no individual bare spots larger than 3 inches in size and no concentrations of bare spots.
- B. Five days prior to the anticipated date of initial inspection, submit written notice requesting inspection to the Engineer.
- C. Fourteen days prior to the anticipated date of final inspection and end of the guaranty period, the Contractor shall submit written notice requesting inspection to the Engineer.

- D. Initial inspection of the landscape to determine completion of contract work, exclusive of possible replacement of plants, will be made by the Engineer upon completion of work. Initial inspection will not be conducted unless all items of work as outlined in PART 3 – EXECUTION have been completed.
- E. After each initial and final inspection, the Contractor will be notified in writing by the Engineer, of acceptance of inspected work exclusive of the possible replacement of plants and correction of deficiencies in the requirements for completion of the work.