



**SPECIAL PROVISIONS
FOR
LANDSCAPE GRADING**

**Linn County
HDP-100-1(73)--71-57**

**Effective Date
November 21, 2017**

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

150050.01 DESCRIPTION.

A. Summary.

1. This part of the Specifications includes all labor, materials, equipment, and supervision required to accomplish the landscape grading for plant beds (tree, shrub, ornamental grass, herbaceous perennial, groundcover and annual beds), and seeded/sodded lawn areas.
2. The material and work specified in this section includes: topsoil, amended topsoil, topsoil and amended topsoil placement, and finish grading.

B. Quality Assurance.

Codes and Standards: Perform work in accordance with applicable requirements of the Standard Specifications, and all local and state codes and ordinances.

150050.02 MATERIALS.

A. Topsoil.

1. On-site topsoil shall be used if available and suitable per the specifications, otherwise it shall be imported.
2. Stockpiled topsoil should be pliable loam, typical of cultivated topsoils of the locality. Secure from naturally well drained areas. Use satisfactory soil materials with highly organic content capable of sustaining turf grass and plant growth.
3. Stockpiled topsoil shall be free of admixture of subsoil, reasonably free from clay lumps, stone, or other debris greater than 1 inch in diameter. Topsoil to have pH value of minimum 5.5 and maximum 7.0. Contractor is responsible for testing topsoil and submitting test results to Engineer for review and approval prior to use and placement.

B. Amended Topsoil Materials.

1. Topsoil as specified above.
2. Organic matter: A product of peat moss, compost, or locally available organic waste. Organic matter should be free from debris, weed seeds, and insects or diseases which may be harmful to the intended planting.
3. Sand: Concrete sand, having a fineness modulus (FM) between 1.8 and 2.5.

C. Submittals.

1. Topsoil: Contractor to submit sample of topsoil to Engineer for review.
2. Organic Matter: Contractor to submit material data sheet(s) on selected organic matter to Engineer for review.
3. Sand: Contractor to submit material data sheet(s) on selected sand to Engineer for review.

150050.03 CONSTRUCTION.

A. Seeded/Sodded Lawn Areas Preparation.

1. Loosen surface of subgrade to minimum 2 inch depth to ensure a positive bond between subgrade and topsoil.
2. Do not place finish topsoil until after clean-up and removal of construction debris, trash, surplus materials, and equipment from project site.
3. Spread topsoil to uniform 6 inch settled depth; to allow for sod thickness, bring grade to 1 inch to 1.5 inch below finish grade shown on plans.
4. Where topsoil is spread, use a cultipacker, pulverizer, or similar tool to pulverize the soil and eliminate all lumps. Do not compact topsoil.

B. Plant Beds Preparation – In Place Mixing of Amended Topsoil.

1. Loosen surface of subgrade to minimum 2 inch depth to insure a positive bond between subgrade and topsoil.
2. Do not place finish amended topsoil until after clean-up and removal of construction debris, trash, surplus materials, and equipment from project site.
3. In plant beds (tree, shrub, ornamental grass, herbaceous perennial, groundcover and annual beds), place and spread topsoil to a uniform 12 inch depth as specified in the planting details.
4. Where amended topsoil is spread, use a cultipacker, pulverizer, or similar tool to pulverize the soil and eliminate all lumps. Do not compact amended topsoil.
5. On a clean topsoil surface, add one part organic matter and one part sand for every two parts of topsoil and till the amendments to a 12 inch depth as specified in the planting details.
6. Provide a 12 inch settled depth of amended topsoil in all plant beds per the planting details.
7. Finish grade plant bed areas as shown on the plans.

C. Plant Beds Preparation - Off Site Mixing of Amended Topsoil

1. Amended topsoil shall be mixed with the ratios of topsoil, organic matter and sand as described in 3.02.
2. Planting beds shall be prepared and amended topsoil placed as described in 3.02.

D. Finish Grading

1. Prepare finish grade for planting, sodding, or seeding with only light raking or scarifying required.
2. Round finished surfaces at abrupt changes in slope.
3. Should spot elevations for finished grades conflict with finished contours, the spot elevations shall govern.
4. Finish grades to uniform levels or slopes between points where levels are given or between such point and existing grades.
5. Positively drain all lawn and planting areas to designated surface water collection points, streets, and/or waterways.
6. Repair irregularities in lawn surface drainage at no cost to Contracting Authority.
7. Protect paving, sidewalks, utilities, and plants during finish grading; repair or replace any items damaged by construction operations at no cost to Contracting Authority.
8. After placement, maintain surfaces to indicated finished grades; deposit additional topsoil or amended topsoil to repair settlement or erosion up to the date of final acceptance. Scarify surfaces upon which additional topsoil is to be deposited.

E. Maintenance

1. Protection of graded areas:
 - a. Protect newly graded areas from traffic and erosion.
 - b. Keep free of trash and debris.
 - c. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
 - d. Keep public streets clean from soil, soil tracking, and debris at all times.
2. Reconditioning Compacted Areas: Where completed graded areas are disturbed by subsequent construction operations, erosion or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction at not cost to the Contracting Authority.
3. Settling: Where settling is measurable or observable during general project warranty period, add topsoil or amended topsoil, compact, and replace surface treatment. Restore appearance, quality, and condition of surface or finish to match adjacent work, and eliminate evidence of restoration at no cost to the Contracting Authority.

F. Disposal of Excess and Waste Materials.

Remove waste materials, including unacceptable excavated material, trash, and debris from the job site.

150050.04 METHOD OF MEASUREMENT.

- A. The Topsoil and Finish Grade for seeded/sodded lawn areas as indicated on the plans, complete-in-place and accepted, will be measured by cubic yard quantity for finished quantity. Quantity is calculated by the depths and areas shown on plans. Shrinkage factor shall be considered incidental to the unit price for this item.
- B. The Amended Topsoil and Finish Grade for plant beds (tree, shrub, ornamental grass, herbaceous perennial, groundcover and annual beds) as indicated on the plans, complete-in-place and accepted, will be measured by cubic yard quantity for finished quantity. Quantity is calculated by the depths and areas shown on plans. Shrinkage factor shall be considered incidental to the unit price for this item. Topsoil for inclusion in the Amended Soil mix should be included in that quantity.

150050.05 BASIS OF PAYMENT.

- A. The Topsoil and Finish Grade for seeded/sodded lawn areas measured as provided above will be paid for at the contract cubic yard price bid, which shall be full compensation for furnishing all equipment, materials, and all other work necessary or incidental to the construction of the complete Topsoil and Finish Grade for seeded/sodded lawn areas and for all equipment, tools, labor, and incidentals necessary to complete the work.
- B. The Amended Topsoil and Finish Grade for plant beds (tree, shrub, ornamental grass, herbaceous perennial, groundcover and annual beds) measured as provided above will be paid for at the contract cubic yard price bid, which shall be full compensation for furnishing all equipment, materials, and all other work necessary or incidental to the construction of the complete Amended Topsoil and Finish Grade for plant beds (tree, shrub, ornamental grass, herbaceous perennial, groundcover and annual beds) and for all equipment, tools, labor, and incidentals necessary to complete the work.