

**SECTION 02920
SCREENED TOPSOIL AND TOPSOIL BORROW**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

- A. Work Included: Providing, testing, placing and finish grading all ½” screened topsoil stockpiled and borrow topsoil as shown on the Drawings and specified herein to properly complete all lawn and planting operations. Where proposed tree or shrub planting mix and seeding is noted on the drawings, it shall be composed of onsite screened topsoil to be reused in compliance with these specifications or Topsoil Borrow, as required, to meet this specification.
- B. Sufficient quantities of topsoil are present at the site and available for reuse as topsoil if compatible with the requirements of this specification. The Contractor shall be responsible for amending topsoil, as required to comply with this specification.
- C. Spread all stockpiled topsoil to produce a uniform depth throughout proposed general lawn areas.
- D. Use soil amendments such as lime and fertilizer in accordance with testing laboratory recommendations.

1.3 SUBMITTALS

- A. Topsoil test results shall be submitted to the Engineer/Owner for review to determine acceptability.

1.4 QUALITY ASSURANCE

- A. Topsoil:
 - 1. Testing: Representative topsoil samples shall be tested to determine:
 - a. Amendments necessary for good plant growth.
 - b. Acidity.
 - c. Organic content.
 - d. Mechanical analysis - sand, silt, and clay. Analysis shall include 200 sieve hydrometer wash as per ASTM D 422 to isolate specific percentage of silt and clay.
 - 2. Before: delivery of any borrow topsoil, furnish the Engineer/Owner with a 5 gallon sample of material.
 - 3. Topsoil testing costs shall be borne by the Contractor.
 - 4. Testing laboratory shall be:

Soils Testing Laboratory

Horticulture Storage Building
 University of Connecticut
 2019 Hillside Road
 Storrs, CT 06269

Substitute laboratory may be used only if testing agency demonstrates to Engineers/Owner's satisfaction, based on evaluation of agency-submitted criteria conforming to ASTM E 699, that it has the experience and capability to satisfactorily conduct the testing indicated without delaying the Work.

1.5 PRODUCT HANDLING

- A. Delivery of borrow topsoil to the site shall be coordinated such that it is placed as delivered and no stockpiling required.

PART 2 PRODUCTS

2.1 BORROW TOPSOIL

- A. Screened Topsoil materials harmful to plant life, to be clean, fertile, friable, well draining, natural sandy loam. All topsoil to be free of any subsoil earth clods, sods, stones over 1/2" in any dimension, sticks, roots, weeds, litter and other deleterious material. Screened Topsoil shall be uniform in quality and texture and contain organic matter and mineral elements necessary for sustaining healthy plant growth.

- B. Screened Topsoil shall have the following optimum ranges unless otherwise approved by the Engineer/Owner.

Organic Content (by loss of ignition at 375 C method of testing)	6.0 - 20%
PH	6.0 - 8.0

- C. Nutrient levels shall be achieved by the Contractor's addition of amendments to the topsoil to meet the optimum nutrient levels specified in the testing laboratory report for each of crop/plant to be installed.

- D. Proposed screened topsoil shall meet the following mechanical analysis:

<u>Classification</u>	<u>% of Total Weight</u>	<u>Average %</u>
Sand (0.05 – 2 (mm))	45 – 75	60
Silt (0.002 – 0.05mm)	15 – 35	25
Clay (Less than 0.002mm)	5 – 20	15

- E. Screened Topsoil shall be completely free of any toxic chemical, hazardous waste and any material or condition that would prevent the establishment of a suitable lawn.

Screened Topsoil shall be a natural product consisting of primarily of natural topsoil, free from subsoil, and obtained from an area that has never been stripped. Screened Topsoil shall not contain less than five percent (5%) nor more than ten percent (10%) organic

matter as determined by the loss on ignition of oven-dried samples, at 100 C ± 5 C. To adjust organic matter content, the soil may be amended, prior to site delivery, by the addition of composted leaf mold or peat moss. Use of organic amendments is accepted only if random soil sampling indicates a through incorporation of these materials.

2.2 STOCKPILED TOPSOIL (IF APPLICABLE)

- A. Proposed for reuse shall conform to all requirements of paragraph 2.1 of this Section and shall be screened unless otherwise approved by the Engineer/Owner.

2.3 EXISTING TOPSOIL

- A. Amend existing topsoil as required by topsoil tests. Supplement with imported topsoil when required.

PART 3 EXECUTION

3.1 SHAPING AND GRADING OF SUBSOIL AT ALL LAWN AREAS

- A. After shaping of lawn subgrades, remove all sticks, stones, or foreign material one and one half (1-1/2) inches or greater in dimension. Harrow or otherwise loosen the subgrade soil to a depth of four (4) inches if required to correct overcompaction. Remove debris and stone off-site.
- B. Do not apply Screened Topsoil to the scarified subgrade without approval by the Engineer/Owner. Screened Topsoil will not be permitted to be spread until topsoil test reports have been submitted and approved. Topsoil shall not be delivered or worked in a frozen or muddy condition.
- C. Uniformly distribute and spread stockpiled and borrow topsoil from over all graded lawn areas to conform smoothly to the lines, grades, and elevations shown or otherwise required. All baseball field areas to have a minimum of six (6) inches of topsoil after compaction or as indicated on the Contract Drawings.

Manually supply topsoil around all trees and shrubs to remain. Avoid damage to root systems.
- D. Resupply and place topsoil to eroded, settled or damaged areas until all lawn areas are stabilized. Care shall be taken not to damage grass or pavement areas in the replacement to topsoil.

3.2 PROTECTION

- A. Remove: weeds prior to lawn development operations. No weeds shall be allowed to go to seed.
- B. Keep: heavy equipment, trucks, etc. off topsoiled areas. At no time will equipment other than light tractors be allowed on any topsoiled areas.
- C. If compaction occurs, scarify to a depth of 6" and regrade grade.

3.3 EXCESS STOCKPILED TOPSOIL

- A. Remains property of Owner and is to be deposited by the Contractor in an approved location unless otherwise directed by the Owners Representative.

END OF SECTION 02920