

**SECTION 32 91 19.13
TOPSOIL PLACEMENT**

PART 1 GENERAL

1.01 1.01 SECTION INCLUDES

- A. A. Topsoil and Placement

1.02 1.02 RELATED REQUIREMENTS

- A. A. Section 31 22 00 – Earthmoving, Filling and Grading.

PART 2 PRODUCTS

2.01 2.01 TOPSOIL

- A. A. Topsoil shall be one grade only. It shall consist of natural loam topsoil free from subsoil, stones, sticks, roots, and debris of any kind. It shall be obtained from an area which has never been stripped and shall also be of uniform quality. It shall be removed to a depth of one (1) foot, or less if subsoil is encountered. If a truckload of topsoil is considered by the Authority to contain too much undesirable material to be corrected on site, the entire truck load shall be rejected. No topsoil shall be delivered in a frozen or muddy condition. Topsoil shall comply with the following requirements:
- B. B. Acidity range - pH value 5.0 to 7.0
- C. C. Organic content - 5% minimum not to exceed 14% as determined by weight loss on ignition of moisture free samples dried at 100 to 230 degrees Fahrenheit.
- D. D. Sieve Analysis - ASTM designation C 117:
1. 1. Passing 2" sieve 100%
 2. 2. Passing 1" sieve 95% to 100%
 3. 3. Passing #4 sieve 90% to 100%
 4. 4. Passing #100 sieve 30% to 60%
 5. 5. Passing #200 sieve 10% to 30%
- E. E. The Housing Authority Inspector reserves the right to reject topsoil in which more than sixty-five percent (65%) of the material passing #100 sieve consists of clay as determined by the Buoyous Hydrometer or decantation method. All percentages are to be based on dry weight of sample. Electrical Conductivity shall be less than 1500 mhos/cm. A higher level indicates excessive salt content. The testing method shall be the saturated paste method.
- F. F. The Housing Authority Inspector may permit incorporation into the topsoil of additional humus to correct a deficiency of not more than one (1) percent in organic matter provided the topsoil otherwise complies with the requirements of the Specifications.
- G. G. Representative samples of the topsoil shall be taken by the Contractor at the source and delivered to a recognized testing laboratory. Samples and certified analysis shall be submitted by the Contractor at his own expense for approval by the Authority. The chemical and mechanical analysis shall show the acidity range, organic content, clay content, sieve analysis and electrical conductivity. A statement shall accompany the certified report giving the location where the topsoil is obtained, the name and address of the owner of the topsoil and the approximate quantity of the topsoil.
1. 1. Approval of the tested sample shall not be construed as final acceptance of the topsoil. The Housing Authority Inspector reserves the right to take samples of the topsoil delivered to the site of the work and analyze them for comparison with the Specifications at ANY time during the contract period. The cost of this test will be borne by the Authority. Should the test show non-compliance with the Specifications, the Authority will charge the cost of any such tests to the Contractor. Topsoil delivered which does not comply with the Specifications will be rejected and shall be removed from the Development by the Contractor at no cost to the Authority.
- H. H. Approved topsoil shall be used for backfilling planter beds to a depth of 8".

I. I. PLANT INOCULATION SPECIFICATION

1. 1. The Contractor shall furnish and incorporate MYCOR®TREE SAVER ® PACKETS and HEALTHY START® MACRO TABS 12-8-8 as manufactured by: PLANT HEALTH CARE, INC. 440 William Pitt Way, Pittsburgh, PA 15238 telephone 1-800-421-9051, (OR EQUAL) for tree installations, quantities as noted under Planting Operations. Both shall be placed in the presence of the Housing Authority Inspector or designated NYCHA representative
2. 2. THE CONTRACTOR SHALL SAVE ALL EMPTIED MYCOR®TREE SAVER ® PACKETS AND SUBMIT THEM TO THE HOUSING AUTHORITY INSPECTOR to confirm the proper use of the TREE SAVER TRANSPLANT product. In order to check for the presence of HEALTHY START® MACRO TABS the Housing Authority Inspector may examine the backfill soil for the presence of hydrated gel after adequate rainfall has occurred.

J. J. Fertilizer for planting beds shall be commercial fertilizer 5-10-5 mixture granular fertilizer, the elements of which are derived from organic sources and shall contain the following percentages by weight:

1. 1. 5% - Nitrogen 10% - Phosphoric acid 5% - Potash
2. 2. One-quarter of the nitrogen shall be in the form of nitrates, one-quarter in the form of ammonia salts and one-half in the form of natural organic nitrogen. Available phosphoric acid to be from super phosphate, bone, or tankage. The potash to be in the form of sulphate of potash. The availability of the various elements shall conform to the standards of the Association of Official Agricultural Chemists.
3. 3. Fertilizer shall be delivered, mixed as specified, in standard size bags, showing weight, analysis and name of manufacturer, and shall be stored in weatherproof storage place and in such manner that its effectiveness will not be impaired. Fertilizer shall be applied at a rate of 1/2 lb. per square yard and broadcast on top of the shrub bed.
4. 4. All ropes, stones, etc. shall be removed from the planter bed before backfilling. Soil for backfilling shall be loose and friable and not frozen. Soil shall be firmed at two to three inch intervals (lifts) and thoroughly settled with water.
5. 5.. The Contractor shall cultivate and rake over finished planting beds and shall leave them in an orderly condition. All debris, branches, rubbish, poor soil, and waste are to be immediately removed from grounds of the Development.
6. 6. All excess excavation as well as material not required or in the opinion of the Authority unsuitable for fill in connection with the work under this Contract is to be immediately removed from the site by the Contractor on the same day of excavation.

PART 3 EXECUTION

3.01 3.01 EXAMINATION

- A. A. Verify that prepared subsoil and planters are ready to receive work.

END OF SECTION 32 91 19.13