

SECTION S613 - TOPSOIL

S613-1 DESCRIPTION

Work consists of furnishing and placement of topsoil as required in Contract Documents and as directed by Project Manager.

S613-2 MATERIALS

S613-2.01 Topsoil

Topsoil material is to be natural, fertile, friable soil typical of local region. Topsoil material is to be surface layer of soil, and is to be free of all undesirable material which is larger than 1 inch in its greatest dimension. Sod and herbaceous growth such as grass and weeds need not be removed from topsoil material, but are to be thoroughly broken up and mixed into overall topsoil material. Undesirable materials are but not limited to refuse; paving materials such as concrete, asphalt, brick; materials which are toxic to plant growth and grass seed; subsoil, woody vegetation, stumps, roots, brush, clods, hard lumps, stones and rocks.

Topsoil material is to have pH range of between 6.0 and 7.5, organic content of between 2 and 20 percent (dry weight basis), and is to meet following gradation requirements:

Screen Size	Percent Passing by Weight
2 inch	100%
1 inch	85 to 100%
1/4 inch	65 to 100%
#200	20 to 80%

Submit certification statement from topsoil supplier stating existing pH level, percentage of organic content and gradation. If necessary certification is to also state any recommendations on usage of amendments required to produce topsoil material conforming to required pH range. Topsoil material amendments that are to be used for adjustment of soil chemistry are to be standard commercial type including but not limited to ground limestone; gypsum; products containing phosphorus, potassium, sulphur, et cetera.

Limestone is to be standard, pulverized commercial type having minimum total neutralizing value of 88 percent calcium carbonate equivalence, which is to be applied at rate sufficient to bring existing pH of topsoil material to required range of 6.0 to 7.5, as determined by testing.

S613-2.02 Stockpiling and Testing

Topsoil material may be acquired from previously approved site that is designated in Contract Documents. If no such previously approved site has been designated, Contractor is to notify Project Manager of intended source of topsoil material minimum of 21 days prior to scheduled use to allow for sampling and testing of topsoil material. Topsoil material is to come from stockpile that contains at least 200 cubic yards of topsoil material, is at least 4 feet high, and is trimmed, shaped and maintained to uniform surfaces and slopes.

S613-2.03 Rejection/Acceptance of Topsoil Material

Topsoil material which does not conform to material requirements, receives any unsatisfactory test result, contains any undesirable foreign material; has offensive or objectionable overpowering odor, or lacks certification statement from supplier, will be rejected.

Acceptance of topsoil material will be based upon satisfactory test results, absence of any offensive or objectionable overpowering odor, and receipt of supplier's certification statement.

Project Manager will notify Contractor in writing that topsoil material has been rejected, or accepted for use.

S613-3 CONSTRUCTION DETAILS

S613-3.01 General

Where Contractor is required to place topsoil material on existing surface that has been prepared by others, Contractor is to notify Project Manager in writing if existing surface is unsuitable for placement of topsoil material. Appropriate action is to be taken to rectify condition of existing surface before placing any topsoil material.

S613-3.02 Tree Protection

Contractor is to protect all existing trees and tree roots within project limits from damage by construction activities. Contractor is not to place or stockpile any construction or excavated materials within limits of canopy of any existing tree to prevent smothering of existing tree's root system. Vehicles and other construction equipment are not to be parked on any tree root system, nor left running (idling) under limits of canopy of any existing tree.

Where cutting of existing tree roots is necessary, it is to be done with sharp cutting tools. Exposed tree roots are to be re-buried as soon as possible. Until exposed tree roots can be re-buried, exposed tree roots are to be covered with wet burlap. Burlap is to be kept wet until exposed tree roots can be re-buried.

Existing trees that are damaged by construction activities are to be repaired within 72 hours using current arboricultural standards. Those existing trees that are determined by City Forester to be damaged beyond repair, are to be removed and replaced by Contractor.

Topsoil that is placed around an existing tree is not to be placed any higher than 3 inches of original surface area at base of existing tree.

S613-3.03 Soil Amendments

If required, soil amendments are to be applied according to manufacturer's instructions for safe and effective application, and at rate sufficient to bring chemistry of topsoil material to required pH range.

During turf establishment, City may have further tests done on topsoil material. Any topsoil material which is not in accordance is to be further treated with amendments or replaced with new topsoil material.

S613-3.04 Surface Preparation

Existing surface is to be re-graded as necessary to be uniform in contour, to meet required grades and cross-slopes, and to be free of irregularities. Finished grades and cross-slopes are to be uniformly sloping between adjacent features. Final surface contour is to be checked for accordance to required grades and cross-slopes by use of any approved method. Irregularities which form low areas and may tend to pond water are to be eliminated when existing surface is re-graded. If necessary, low areas that cannot be eliminated by re-grading are to be filled in with topsoil material.

Existing surface is to be culled of all undesirable material which is larger than 1 inch in its greatest dimension. Sod and herbaceous growth such as grass and weeds need not be removed from existing soil material, but are to be thoroughly broken up and mixed into overall soil material. Undesirable materials are but not limited to refuse; paving materials such as concrete, asphalt, brick; materials which are toxic to plant growth and grass seed; subsoil, woody vegetation, stumps, roots, brush, clods, hard lumps and rocks.

All embedded foreign objects are to be removed and resultant hole filled-in with topsoil material. All undesirable materials are to be removed and disposed of prior to treating surface area.

Excavation and disposal is to be in accordance with NYSDOT Section 203 Excavation and Embankment. All excavated material is to be properly disposed of off Project site within 24 hours of being excavated. Stockpiling of excavated material at Project site is not allowed.

S613-3.05 Compaction

After placement, topsoil material is to be compacted with approved lawn roller to minimize as much as possible any further settlement. If necessary after initial rolling, add additional topsoil material to fill-in any voids or depressions. Continue to compact and re-work topsoil material until finished surface area is uniform and meets required grades and cross-slopes.

S613-4 METHOD OF MEASUREMENT

Quantity to be measured for payment will be number of cubic yards of topsoil material placed, as computed in its final compacted state.

Measurement for payment based on delivery tickets of topsoil material is not acceptable.

S613-5 BASIS OF PAYMENT

Unit price bid includes cost of: furnishing, testing, amending, placing, compacting, grading topsoil material; surface preparation; grading; minor excavation; removal and disposal of all undesirable materials; survey and stakeout necessary to establish required elevations, grades and cross-slopes; tree protection; furnishing and installing necessary protection against pedestrian and vehicular traffic; re-work and correction of grades and cross-slopes; and furnishing all labor, material, and equipment necessary to complete work.

Minor excavation that is included in unit price bid for topsoil is defined as any general excavation that is less than 3 inch deep. Minor excavation is further defined as specific excavation area that is deeper than 3 inch but has contiguous surface area that encompasses less than 50 square feet and is necessary for preparation of surface area.

General excavation that is 3 inch or greater in depth, and specific excavation area that encompasses contiguous surface area that is larger than 50 square feet, will be paid for under separate bid item.

Payment will be made under:

ITEM NO.	ITEM	PAY UNIT
S613.03	Topsoil	Cubic Yard