

ITEM #0950040A – CONSERVATION SEEDING FOR SLOPES

Description: The work included in this item shall consist of providing an accepted stand of established conservation grasses by furnishing and placing seed as shown on the environmental permit plates, construction plans, or as directed by an Environmental Scientist from the Connecticut Department of Transportation's Office of Environmental Planning (OEP) within the wetland creation areas, habitat enhancement areas, and/or designated environmentally sensitive areas. Seeding shall be applied to all constructed slopes associated with the created wetlands, and/or specific areas designated by OEP.

Materials: All approved seed mixtures shall be obtained in sufficient quantities to meet the pure live seed (PLS) application rates as required by the seed analysis of the mixture.

The Contractor shall submit the Form for Affidavit-Seed (Official Stationery of Supplier) for the proposed seed mix to the Engineer a minimum of 10-days prior to the seeding date for the area(s) in order to verify that the seed mix is compliant with the specification. The seed mixture shall be delivered to the project in sealed containers/bags and inspected by the Engineer prior to seeding the specified site. Application of fertilizer, where necessary, will be directed by the Environmental Scientist based on a soil analysis of the area to be seeded. The following mix shall be used for this item.

Conservation Mix (for slopes):

In order to preserve and enhance the diversity of native species, it is necessary that the source for seed mixtures used in created wetlands and/or designated environmentally sensitive areas be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland. One approved seed mixture is detailed. Other proposed mixtures must be submitted to OEP and approved by the Environmental Scientist prior to use. The materials certification for any proposed mixture that is different from that described below must be submitted a minimum of ten (10) days prior to delivery on site. This certification must match both the previously approved substitute mixture and the seed tags on the bags that are to be removed upon delivery. No seeding shall occur if all three items do not match.

<u>Pounds (lbs) of PLS per acre</u>	<u>Scientific Name</u>	<u>Common Name</u>
30	<i>Festuca rubra</i>	Creeping red fescue
20	<i>Lolium multiflorum</i>	Annual rye-grass
15	<i>Panicum clandestinum</i>	Deer tongue
10	<i>Chamaecrista fasciculata</i>	Partridge pea
15	<i>Schizachyrium scoparium</i>	Little bluestem
10	<i>Tridens flavus</i> var. <i>flavus</i>	Purple top

Construction Methods: Construction Methods shall be those established as agronomically acceptable and feasible as determined by the OEP. Rate of application shall be 100 lbs PLS per

acre. Where seed is not obtained based on PLS quantities, the actual application rate of approved and delivered seed mixture will be determined by calculating the amount of PLS from the information provided on the seed tags at delivery. The PLS formula will be used to determine the desired application rate to obtain a stand of even seed growth for each seed type to be applied within the seeded area(s). The rate of application will be increased based on the actual percentage of PLS for each species delivered to the site so that each species is seeded at 100 % PLS. The PLS formula is as follows:

$$(\text{Germination Percentage} \times \text{Purity Percentage}) / 100 = \text{Percentage PLS}$$

The Engineer shall determine and verify the actual application rate based on the PLS formula for the areas to be seeded with conservation mix.

The seed shall be temporarily stabilized with hay or cellulose fiber mulch. The application rate for hay mulch and fiber mulch shall be 3500 lbs per acre. Unless directed by OEP, absolutely no mowing shall be conducted within the areas that are seeded with conservation mix.

With the exception of wetland creation sites, all areas to receive conservation seed mix shall be seeded during the spring, fall, or as directed by the OEP. Spring seeding must be performed between March 15th and June 15th. Fall seeding must be performed between August 15th and October 15th. Specifically for wetland creation sites, the area shall be seeded during the fall seeding season immediately following construction of the site in accordance with the Item # 0949007A – Wetland Creation. At the direction of the Environmental Scientist, partial seeding of a site may be required in order to stabilize slopes that are finished prior to completion of the entire creation site.

Method of Measurement: This work will be measured for payment by the number of square yards of surface area of accepted established conservation grasses as specified or by the number of square yards surface area of seeding actually covered and as specified.

Basis of Payment: This work will be paid for at the contract unit price per square yard for “Conservation Seeding for Slopes,” which price shall include all materials, maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 50% may be made for work completed, but not accepted. Full payment shall not be made until the area has been accepted by the Environmental Scientists.

Pay Item	Pay Unit
Conservation Seeding for Slopes	S.Y.