

ITEM #0945005A – WILDFLOWER ESTABLISHMENT

Description: The work included in this item shall consist of providing an accepted stand of established wildflowers by furnishing and placing seed and fertilizer on all areas to be treated as shown on the plans, permits or as directed by the Environmental Scientist from the Office of Environmental Planning.

Materials: All wildflower seed mixture sources shall be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland in order to preserve and enhance the diversity of native wildflower species.

Fertilizer, if necessary based on soil analysis of the area to be seeded, shall meet the requirements of M.13.03.

All seed mixture sources and fertilizer, shall be approved by Environmental Scientist prior to application.

Three approved seed mixtures are detailed below.

- 1. New England Wildflower Seed Mix: (NEWP) New England WetMix**, New England Wetland Plants, Inc. 800 Main Street Amherst, MA 01002, or equal. Rate shall be 1 pound PLS per 1900 sq.ft.

scientific name

Asclepias syriaca
Aster laevis
Aster novae-angliae
Chamaecrista fasciculata
Elymus canadensis
Elymus virginicus
Festuca rubra
Heliopsis helianthoides
Monarda fistulosa
Oenothera biennis
Penstemon digitalis
Rudbeckia hirta
Schizachyrium scoparium
Solidago nemoralis
Sorghastrum nutans
Vernonia noveboracensis
Zizia aurea

common name

Common milkweed
 Smooth Blue Aster
 New England Aster
 Partridge Pea
 Canada Wild Rye
 Virginia Wild Rye
 Creeping Red Fescue
 Ox Eye Sunflower
 Wild Bergamot
 Evening Primrose
 Tall White Beardtongue
 Blackeyed Susan
 Little Bluestem
 Gray Goldenrod
 Indian Grass
 New York Ironweed
 Golden Alexanders

6-28-2016

2. **Showy Northeast Native Wildflower Mix:** Ernst Conservation Seeds Inc. 8884 Mercer Pike, Meadville, PA, 16335, or equal. Rate shall be 6-10 pound PLS per 1 acre with 20 pound per acre of cover crop (grain oats, Jan 1-Aug 1; grain rye, Aug 1-Jan1)

scientific name

Asclepias tuberosa
Aster laevis
Aster novae-angliae
Baptisia australis
Chamaecrista fasciculata
Coreopsis lanceolata
Echinacea purpurea
Heliopsis helianthoides
Liatris spicata
Monarda fistulosa
Penstemon digitalis
Pycnanthemum incanum
Rudbeckia hirta
Rudbeckia triloba
Senna hebecarpa
Senna marilandica
Solidago juncea
Tradescantia ohiensis

common name

Butterfly Milkweed
Smooth Blue Aster
New England Aster
Blue False Indigo
Partridge Pea
Lanceleaf Coreopsis
Purple Coneflower
Oxeye Sunflower
Marsh (Dense) Blazing Star
Wild Bergamot
Tall White Beardtongue
Hoary Mountainmint
Blackeyed Susan
Browneyed Susan
Wild Senna
Maryland Senna
Early Goldenrod
Ohio Spiderwort

3. **Wetland Seed Mixture: Wet Meadow/ Detention Basin,** Vermont Wetland Plant Supply, LLC, P.O. Box 153, Orwell, VT, 05760, or equal. Rate shall be 1 pound PLS per 1600 sq.ft.

scientific name

Andropogon gerardii
Bouteloua curtipendula
Chamaecrista fasciculata
Elymus virginicus
Euthamia graminifolia
Heliopsis helianthoides
Rudbeckia hirta
Schizachyrium scoparium
Senna hebecarpa
Senna marilandica
Silphium trifoliatum
Sorghastrum nutans
Zizia aurea

common name

Big Bluestem
Sideoats grama
Partridge Pea
Virginia Wild Rye
Flat-top goldentop
Oxeye Sunflower
Blackeyed Susan
Little Bluestem
Wild Senna
Maryland Senna
Whorled rosinweed
Indian Grass
Golden Alexanders

If an alternate seed mixture is proposed, it must be approved by the Environmental Scientist. The materials certification for any proposed mixture that is different from that described above shall be submitted a minimum of ten (10) days prior to delivery on site. This certification shall match the approved substitute mixture and the seed tags on the bags. The seed tags from the bags are to be removed upon delivery and attached to the Material Certification. No seeding shall occur if all three requirements do not match.

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

Construction Methods: Construction methods shall be those established as agronomically acceptable and feasible and approved by the Engineer.

Soil analysis of the area shall be done prior to seeding.

Preparation of Seedbed Areas:

- a. Level areas, median areas, interchanges and lawns: These areas shall be made friable and receptive for seeding by discing or by other approved methods to the satisfaction of the Engineer. The final prepared surface which has been seeded shall meet the lines and grades for such surface areas as shown on the plans, or as directed by the Engineer.
- b. Slope and embankment areas: These areas shall be made friable and receptive to seeding by approved methods which will not disrupt the line and grade of the slope surface. In no event, will seeding be permitted on hard or crusted soil surface.

All areas to be seeded shall be reasonably free from weeds taller than 3 inches. Removal of weed growth for the slope areas shall be those methods which do not rut or scar the slope surface or cause excessive disruption of the slope line or grade as approved by the Engineer. Seeding on level areas shall not be permitted until substantial weed growth is removed and approved by the Engineer.

Seeding Season: The calendar dates for seeding shall be:

Spring – March 1 to June 15

Fall – September 15 to November 15

Seeding Methods: The wildflower seed mixture shall be applied by an agronomically acceptable procedure. The rate of application shall be as shown on the plans or directed by the Engineer.

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

The Engineer shall verify that the seed is applied at a rate which will allow for 100 percent PLS.

6-28-2016

Application of fertilizer will be as directed by the Engineer based on a soil analysis of the area to be seeded.

Method of Measurement: The work will be measured for payment by the number of pounds of each size and kind of wildflower seed counted, planted and accepted.

Basis of Payment: This work will be paid at the contract unit price per pound for “Wildflower Establishment,” which price shall include all materials, maintenance, equipment tools, labor, transportation, operations, and all 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 Engineer.

Pay Item
Wildflower Establishment

Pay Unit
lb.