**SPECIAL PROVISIONS**

**FOR**

**Stearns Road Environmental Commitment**

**McLean Boulevard Fen**

**Adaptive Management Plans**

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The following Special Provisions supplement the “Standard Specifications for Road and Bridge Construction” adopted January 1, 2008 (herein referred to as the Standard Specifications); the latest edition of the “Illinois Manual of Uniform Traffic Control Devices for Streets and Highways” in effect of the date of invitation for bids; the “Supplemental Specifications and Recurring Special Provisions” adopted January 1, 2008 (as indicated on the check sheet included herein) for the proposed improvement designated as Section **08-00214-21-LS**. In case of conflict with any part or parts of said specifications said special provisions shall take precedent and shall govern.

**LOCATION OF IMPROVEMENT**

This project sites are located west of the intersection of McLean Boulevard approximately 250 feet north of Stearns Road in the Village of South Elgin Kane County, Illinois.

**DESCRIPTION OF THE IMPROVEMENT**

The work shall consist of grading, construction of a driveway and porous concrete parking lot, nature trail installation, construction of a boardwalk, seeding, planting and erosion control to preserve and enhance the natural recharge area of the McLean Boulevard Fen.. Additional improvements include herbaceous and woody vegetative plantings to restore the sites to a native condition This site has been identified in the environmental commitment documents for the Stearns Road project.

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**GENERAL CONDITIONS**

The Contractor’s attention is directed to the following:

Working Hours / Working Days – Construction activities may occur between 7:00 a.m. and 7:00 p.m. Monday through Friday, and 8:30 a.m. to 5:00 p.m. on Saturdays. Construction activities on Sundays are prohibited. No work will be performed on holidays observed in Illinois. Construction activities are defined as the operation of heavy equipment, to include but not limited to all construction trucks and equipment. This is to include the warming up of any piece of equipment or turning on the engines. Construction activities shall not begin before 7:00 a.m.

Inspection and Layout – The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations, and dimensions called for on the plans. The Contractor shall be held responsible for the quality and completeness of his work. The Engineer is the County’s representative to verify quality and completeness. Any construction layout necessary shall be coordinated through the Resident Engineer. The Contractor shall exercise care in the preservation of stakes and bench marks and shall have them reset at his/her expense when any are damaged, lost, displaced, or removed or otherwise obliterated.

Temporary Toilet – The Contractor shall provide a temporary toilet facility for the use of all contractors’ personnel employed on the work, and shall maintain same in proper sanitary condition. At completion, the facility shall be removed and the premises left clean. The Engineer shall approve the location of the temporary toilet. The cost of this facility is considered incidental to the contract.

Disposal of Waste Excavated Material – The Contractor shall remove from the project site all unsuitable excavated material. This material will be classified as all material that the Engineer deems unsuitable, such as rebar, abandoned wire, etc. The waste excavated material shall not be deposited on public or private property unless the Contractor first obtains the written permission from the property owner or the authorized representative of the appropriate public agency. Provisions of Article 202.03 Standard Specifications shall be adhered to. The removal of unsuitable material from the site will be incidental to this contract and no compensation will be paid. The disposal area location shall be disclosed to the Engineer.

The cost of complying with the above General Conditions shall be considered incidental to the contract unless specifically covered elsewhere in the Special Provisions.

**CONSTRUCTION SAFETY AND HEALTH STANDARDS**

It is a condition of this contract and shall be made a condition of each subcontract entered into pursuant to this contract that the Contractor and any Subcontractor shall not require any laborer or mechanic employed in performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to their health or safety, as determined under Federal Construction Safety and Health Standards.

**BIDDING PROCESS AND AWARD OF CONTRACT**

The bidding documents for this project are available at the Kane County Division of Transportation offices for a fee of $100. All contractors who purchase bidding documents must present the following contact information: Company Name, Phone Number, Fax Number, and responsible Email.

Any necessary addendums will be distributed in one of the following ways:

1. If addendums are necessary, they will be emailed to the contractor or subcontractor. The contractor or subcontractor shall acknowledge receipt of the email addendum by responding to the contract listed on page one of the Notice to Bidders.
2. If the Contractor does not possess an email address or Internet access, the addendum material will be faxed. Large format sheets (such as 24” x 36” plan sheets) or other materials that cannot be faxed will be picked up at the Kane County Division of Transportation at no cost. The Contractor’s representative shall sign a form to acknowledge receipt of the addendum.

The award of this contract will be made to the lowest bidder. The County reserves the right to reject any or all non-conforming, non-responsive, unbalanced, or conditioned bids, and to reject the bid of any bidder if the County believes that it would be in the best interest of the County not to award to that bidder. The County also has the right to award this contract with the deletion or reduction of any item in its entirety or partially without claim by the Contractor for loss of profit or overhead.

**PROSECUTION OF WORK**

At the Pre-Construction Meeting, the Contractor and Resident Engineer must decide on the project schedule. This project schedule shall show all / describe major items. Throughout the project, the Contractor will be required to coordinate construction activities with the Resident Engineer. No compensation will be allowed the Contractor due to any delays caused by either party.

**CONTRACTORS DAILY NOTIFICATION**

The Contractor shall notify the Engineer prior to production and placement of pervious pavement so that the required material inspection can be scheduled. The Contractor’s notification shall be no later than **12:00pm** on the day prior to the day of scheduled production and placement.

**DATE OF COMPLETION**

All Work under this Contract shall be completed within 180 working days in compliance with Article 108 of the Standard Specifications.

# **TREE REMOVAL, 6-15 INCHES IN DIAMETER**

**Description:** This work shall consist of performing the task of tree removal, as defined hereinafter, of trees greater than or equal to 6-inches diameter to 15-inches in diameter. Trees shall be removed by “whole tree method” inclusive of intact roots connected to the trunk and upper branches. Trees to be removed are indicated in the plans and will be clearly marked in the field by the ENGINEER.

Definitions:

A tree is defined as a woody, perennial plant having a single main stem or trunk, the diameter of which is 6 inches or more at a point 4.5 feet above the highest ground level at the base of the tree. Those having a diameter less than 6 inches shall be considered saplings. A multiple-stem tree that forks below the 4.5 foot point of measurement will be considered a cluster of individual trees. A tree that forks at or above the 4.5 foot point of measurement will be considered a single tree. A tree stump with a diameter at cut off of 6 inches or more will be considered a tree.

Diameter is defined as the diameter measured at a point 4.5 feet above the highest ground level or known as diameter breast height (DBH), at the base of the tree and is determined by dividing the measured circumference of the tree by 3.1416. For stumps it is defined as the measurement at the elevation of cut off.

Construction Requirements:

Prior to beginning tree removal, all requirements of Article 201.05(a) of the Standard Specifications shall be completed. All trees, except those designated to be saved, and all stumps, shall be cut and disposed of according to Article 202.03 of the Standard Specifications. Trees and stumps within the slope limits of embankments 2 feet or more in depth shall be cut off at ground level. All other trees greater than 20-inches DBH and stumps within the right-of-way shall be removed to a depth not less than 12 inches below the elevation of the subgrade, the finished earth surface, or the ground line.

No trees shall be removed until the Owner’s on-site representative verifies the trees to be removed.

All Osage Orange, *Maclura pomifera* shall not be cut off as specified above, but shall be pushed or grubbed out in such a manner as to ensure complete removal of the roots intact with the trunk.

**Measurement:** This item will be measured per unit diameter for TREE REMOVAL, 6-15 INCHES IN DIAMETER that are removed.

**Payment:** This work will be paid for at the contract unit price per unit diameter for TREE REMOVAL, 6-15 INCHES IN DIAMETER.

# **TREE REMOVAL, GREATER THAN 15 INCHES IN DIAMETER**

**Description:** This work shall consist of performing the task of tree removal, as defined hereinafter, of trees greater than 15-inches diameter. Tree removal shall consist of two methods. Trees greater than 20-inches in diameter shall be removed by cutting, grubbing, and disposal of trees and stumps, as hereinafter defined. Trees less than 20-inches in diameter, shall be removed by “whole tree method” inclusive of intact roots connected to the trunk and upper branches. Trees to be removed are indicated in the plans and will be clearly marked in the field by the ENGINEER.

Definitions:

A tree is defined as a woody, perennial plant having a single main stem or trunk, the diameter of which is 6 inches or more at a point 4.5 feet above the highest ground level at the base of the tree. Those having a diameter less than 6 inches shall be considered saplings. A multiple-stem tree that forks below the 4.5 foot point of measurement will be considered a cluster of individual trees. A tree that forks at or above the 4.5 foot point of measurement will be considered a single tree. A tree stump with a diameter at cut off of 6 inches or more will be considered a tree.

Diameter is defined as the diameter measured at a point 4.5 feet above the highest ground level or known as diameter breast height (DBH), at the base of the tree and is determined by dividing the measured circumference of the tree by 3.1416. For stumps it is defined as the measurement at the elevation of cut off.

Construction Requirements:

Prior to beginning tree removal, all requirements of Article 201.05(a) of the Standard Specifications shall be completed. All trees, except those designated to be saved, and all stumps, shall be cut and disposed of according to Article 202.03 of the Standard Specifications. Trees and stumps within the slope limits of embankments 2 feet or more in depth shall be cut off at ground level. All other trees greater than 20-inches DBH and stumps within the right-of-way shall be removed to a depth not less than 12 inches below the elevation of the subgrade, the finished earth surface, or the ground line.

No trees shall be removed until the Owner’s on-site representative verifies the trees to be removed.

All Osage Orange, *Maclura pomifera* shall not be cut off as specified above, but shall be pushed or grubbed out in such a manner as to ensure complete removal of the roots intact with the trunk.

**Measurement:** This item will be measured per unit diameter TREE REMOVAL, GREATER THAN 15 INCHES IN DIAMETER that is removed.

**Payment:** This work will be paid for at the contract unit price per unit diameter for TREE REMOVAL, GREATER THAN 15 INCHES IN DIAMETER.

**TEMPORARY FENCE**

**Description:** The work shall consist of performing the following items in accordance with the applicable portions of Section 201 of the Standard Specifications, including the protection of existing plant material as hereinafter defined. Vegetation to be saved is designated on the Plans.

Construction Requirements:

All plant material designed to be saved shall be protected prior to the beginning of clearing and shall remain protected during subsequent work.

Parking or maneuvering of machinery, stockpiling of materials, or any other use will not be allowed upon unpaved areas within 10 feet of the root zone of trees or plants designed to be protected. If requested by the CONTRACTOR, the ENGINEER will stake or otherwise mark the protection limits.

The CONTRACTOR shall manually erect a temporary fence as shown on the plans or where directed by the ENGINEER. The temporary fence shall be similar to plastic lathe snow fence, and shall be a minimum of 4 feet high with 6 foot steel “T” posts placed at a maximum of 15 feet apart. This boundary will define the project limit for TEMPORARY FENCE along forested areas of significant ecological value and can only be crossed for specific work designated on the Plans in the area.

**Measurement:** TEMPORARY FENCE will be measured for payment per linear feet. Ground/root protection mats and pruning for safety and equipment clearance will not be measured for payment and will be considered incidental to the contract.

**Payment:** This work will be paid for at the contract unit price per linear foot for TEMPORARY FENCE. The price shall include all necessary labor, materials, and equipment necessary to install the fence as described herein and as shown on the plans.

# **TREE TRUNK PROTECTION (SPECIAL)**

**Description:** The work shall consist of performing the following items in accordance with the applicable portions of Section 201 of the Standard Specifications, including the protection of existing plant material as hereinafter defined. Vegetation to be saved is designated on the Soil Erosion and Sedimentation Control Plans.

Definitions:

A tree is defined as a woody, perennial plant having a single main stem or trunk, the diameter of which is 6 inches or more at a point 4.5 feet above the highest ground level at the base of the tree. Those having a diameter less than 6 inches shall be considered saplings. A multiple-stem tree that forks below the 4.5 foot point of measurement will be considered a cluster of individual trees. A tree that forks at or above the 4.5 foot point of measurement will be considered a single tree. A tree stump with a diameter of 6 inches or more will be considered as a tree.

Construction Requirements:

All plant material designed to be saved shall be protected prior to the beginning of clearing and shall remain protected during subsequent work.

Parking or maneuvering of machinery, stockpiling of materials, or any other use will not be allowed upon unpaved areas within 10 feet of the root zone of trees or plants designed to be protected. If requested by the CONTRACTOR, the ENGINEER will stake or otherwise mark the protection limits.

The CONTRACTOR shall manually erect a temporary fence as shown on the plans or where directed by the ENGINEER. The temporary fence shall be similar to plastic lathe snow fence, and shall be a minimum of 4 feet high with 6 foot steel “T” posts placed at a maximum of 15 feet apart. This boundary will define the project limit for TREE PROTECTION along forested areas of significant ecological value and cannot be crossed. Unauthorized access by the CONTRACTOR beyond this fencing will be prohibited.

The CONTRACTOR shall provide 2 inch x 6 inch x 8 feet boards banded continuously around each trunk as tree trunk protection to prevent scarring of trees shown on the plans or designated by the ENGINEER. For multi-stem trees, saplings, and shrubs to be protected within the area of construction, temporary fencing may be used for trunk protection.

The CONTRACTOR shall provide wooded mats comprised of a minimum dimension of 6 inch x 6 inch timbers x 12 feet long for width that are bound together by cable or other acceptable means in variable lengths to be placed as ground/root protection mats where indicated on plans or where directed by the ENGINEER. These wooden timber mats are to be used to protect the roots of significant trees where access routes for vehicles and/or equipment are planned to pass under the tree crown drip line.

All pruning shall be done according to the National Arborist Associations Pruning Standards for Shade Trees Class II – Standard Pruning Specifications. Pruning for safety purposes shall be shown on the plans or as directed by the ENGINEER. Branches on existing plant material to remain that need to be removed for safety or equipment clearance shall be pruned prior to or during the clearing operation. Breaking off branches of plant material to remain during clearing or construction operations will not be allowed.

Materials shall be disposed of according to Article 202.03 of the Standard Specifications.

**Measurement:** TREE TRUNK PROTECTION (SPECIAL) will be measured for payment per each tree protected. Ground/root protection mats and pruning for safety and equipment clearance will not be measured for payment and will be considered incidental to the contract.

**Payment:** This work will be paid for at the contract unit price per each for TREE TRUNK PROTECTION (SPECIAL).

**GROUND PREPARATION FOR SEEDING**

**Description:** For bare earth seeding, seed bed preparation shall not be started until all stones, boulders, debris and similar material larger than 3 inches in diameter have been removed and all other requirements of Section 212 of the Standard Specifications for Road and Bridge Construction have been completed. The area to be seeded shall be worked to a minimum depth of 3 in. with a disk tiller or other equipment approved by the ENGINEER, reducing all soil particles to a size not larger than 1 in. in the largest dimension. The prepared surface shall be relatively free from weeds, clods, stones, roots, sticks, rivulets, gullies, crusting and caking. No seeds shall be sown until the seed bed has been approved by the ENGINEER.

The CONTRACTOR shall be responsible for determining the appropriate soil aggregate size and moisture content for soil preparation and planting. For areas in which stands of winter wheat exist, as a result of temporary erosion control seeding, disking will be required.

**Materials:**

1. Disk tiller
2. Other equipment as needed

**Payment:** GROUND PREPARTION FOR SEEDING shall be paid for on the basis of the acres required to seed for the individual seed mixes.

**REMOVE EXISTING CULVERTS**

**Description:** The work shall include removal and disposal offsite of existing pipe culverts.

**General Requirements:** The pipe shall be excavated and disposed offsite.

**Measurement:** REMOVE EXISTING CULVERTS will be measured for payment in linear feet.

**Payment:** This work will be paid for at the Contract unit price per foot for REMOVE EXISTING CULVERTS.

**PIPE UNDERDRAINS 4” (SPECIAL)**

**Description:** This work shall consist of the installation of 4” diameter Perforated Corrugated High Density Polyethylene Pipe (HDPE) pipe with a smooth interior as specified on the plan as pervious concrete underdrain. The work shall also include installation of a fabric envelope around the pipe.

**Materials:**

All materials shall meet the requirements of the following articles of Section 1000 Materials.

Item

High Density Polyethylene Pipe (HDPE) with Smooth Interior. 1040.04.

Fabric Envelope for Pipe Underdrains 1080.01

**Method of Measurement:** HDPE pipe will be measured for payment as foot installed.

**Basis of Payment:** PIPE UNDERDRAINS 4” (SPECIAL) will be paid for at the contract unit price per lineal foot.

**PIPE UNDERDRAINS 8” (SPECIAL)**

**Description:** This work shall consist of the installation of 8” diameter Perforated Corrugated High Density Polyethylene Pipe (HDPE) pipe with a smooth interior as specified on the plan as pervious concrete underdrain. The work shall also include installation of a fabric envelope around the pipe.

**Materials:**

All materials shall meet the requirements of the following articles of Section 1000 Materials.

Item

High Density Polyethylene Pipe (HDPE) with Smooth Interior. 1040.04.

Fabric Envelope for Pipe Underdrains 1080.01

**Method of Measurement:** HDPE pipe will be measured for payment as foot installed.

**Basis of Payment:** PIPE UNDERDRAINS 8” (SPECIAL) will be paid for at the contract unit price per lineal foot.

## PERENNIAL PLANTS, prairie TYPE – mesic to dry prairie

**Description:** All work, materials and equipment shall conform to Sections 254 and 1081 of the Standard Specifications except as modified herein.

All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. All prairie type plants shall be planted 12” on centers in a triangular layout at locations specified in the plans.

**Materials:** Revise Article 254.03 Types and Mixtures – Add the following:

Perennial Plants, Prairie Type – Mesic to Dry Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Quantity** | **Scientific Name** | **Common Name** | **C - Value** | **Ind. Status** |
| 93 | Allium cernuum | nodding wild onion | 7 | FAC- |
| 258 | Amorpha canescens | lead plant | 9 | UPL |
| 304 | Andropogon scoparius | little bluestem | 5 | FACU- |
| 247 | Asclepias tuberosa | butterfly weed | 7 | UPL |
| 209 | Aster laevis | smooth blue aster | 9 | UPL |
| 111 | Aster sericeus | silky aster | 10 | UPL |
| 525 | Bouteloua curtipendula | side oats | 8 | UPL |
| 111 | Carex muehlenbergii | sand bracted sedge | 5 | UPL |
| 95 | Coreopsis palmata | prairie coreopsis | 6 | UPL |
| 258 | Elymus virginicus | Virginia wild rye  | 4 | FACW- |
| 207 | Eryngium yuccifolium | rattlesnake master | 9 | FAC+ |
| 93 | Koeleria cristata | june grass | 7 | UPL |
| 207 | Lespedeza capitata | roundhead bush clover | 4 | FACU |
| 218 | Liatris aspera | blazing star | 6 | UPL |
| 278 | Solidago speciosa | showy goldenrod | 7 | UPL |
| 218 | Sporobolus heterolepis | prairie dropseed | 10 | FACU- |
| **3,432** | **Total** |  |  |  |

**Measurement:** Revise Article 254.10 to include the following, PERENNIAL PLANTS, PRAIRIE TYPE – MESIC TO DRY PRAIRIE will be measured for payment in units of 100 perennial plants of the type specified.

**Payment:** This work will be paid for at the Contract unit price per 100 plants for PERENNIAL PLANTS, PRAIRIE TYPE – MESIC TO DRY PRAIRIE.

## PERENNIAL PLANTS, PRAIRIE TYPE – MESIC TO DRY SAVANNA

**Description:** All work, materials and equipment shall conform to Sections 254 and 1081 of the Standard Specifications except as modified herein.

All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. All dry prairie type plants shall be planted 12” on centers in a triangular layout at locations specified in the plans.

**Materials:** Revise Article 254.03 Types and Mixtures – Add the following:

Perennial Plants, Prairie Type – Mesic to Dry Savanna

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Quantity** | **Scientific Name** | **Common Name** | **C - Value** | **Ind. Status** |
| 94 | Aquilegia canadensis | columbine | 6 | FAC- |
| 88 | Aster lateriflorus | calico aster | 4 | FACW- |
| 280 | Aster shortii | Short's aster | 8 | UPL |
| 212 | Baptisia leucantha | white wild indigo | 8 | FACU+ |
| 390 | Bromus latiglumis | ear-leafed brome | 5 | FACW- |
| 469 | Diarrhena americana | beak grass | 10 | FACU |
| 230 | Echinacea purpurea | purple coneflower | 3 | UPL |
| 341 | Elymus villosus | silky wild rye | 5 | FACU |
| 442 | Elymus virginicus | Virginia wild rye | 4 | FACW- |
| 99 | Geranium maculatum | wild geranium | 4 | UPL |
| 247 | Monarda fistulosa | wild bergamot | 4 | FACU |
| 189 | Penstemon digitalis | foxglove beardtongue | 4 | FAC- |
| 203 | Solidago juncea | early goldenrod | 5 | UPL |
| **3,284** | **Total** |  |  |  |

**Measurement:** Revise Article 254.10 to include the following, PERENNIAL PLANTS, PRAIRIE TYPE – MESIC TO DRY SAVANNA will be measured for payment in units of 100 perennial plants of the type specified.

**Payment:** This work will be paid for at the Contract unit price per 100 plants for PERENNIAL PLANTS, PRAIRIE TYPE – MESIC TO DRY SAVANNA.

## PERENNIAL PLANTS, WETLAND TYPE – DETENTION BASIN

**Description:** All work, materials and equipment shall conform to Sections 254 and 1081 of the Standard Specifications except as modified herein.

All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. All wetland type plants shall be planted within clumps. Clumps shall be a minimum of 40 sf. and a maximum of 200 sf. with 1 species per clump.

**Materials:** Revise Article 254.03 Types and Mixtures – Add the following:

Perennial Plants, Wetland Type – Detention Basin

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rate/Acre** | **Scientific Name** | **Common Name** | **Clump Size (sf.)** | **C - Value** | **Ind. Status** |
| 500 | Alisma subcordatum | water plantian |  | 6 | OBL |
| 500 | Sagittaria latifolia | common arrowhead |  | 6 | OBL |
| 1,500 | Scirpus acutus | hardstem bulrush |  | 4 | OBL |
| 1,000 | Scirpus fluviatilis | river bulrush |  | 6 | OBL |
| 1,500 | Sparganium eurycarpum  | common bur reed |  | 4 | OBL |
| **5,000** | **Total per Acre** |

**Measurement:** Revise Article 254.10 to include the following, PERENNIAL PLANTS, WETLAND TYPE – DETENTION BASIN will be measured for payment in units of 100 perennial plants of the type specified.

**Payment:** This work will be paid for at the Contract unit price per unit for PERENNIAL PLANTS, WETLAND TYPE – DETENTION BASIN.

## PERENNIAL PLANTS, WETLAND TYPE – EMERGENT

**Description:** All work, materials and equipment shall conform to Sections 254 and 1081 of the Standard Specifications except as modified herein.

All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. All wetland emergent type plants shall be planted within clumps. Clumps shall be a minimum of 40 sf. and a maximum of 200 sf. with 1 species per clump.

**Materials:** Revise Article 254.03 Types and Mixtures – Add the following:

Perennial Plants, Wetland Type – Emergent

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rate/Acre** | **Scientific Name** | **Common Name** | **Clump Size (sf.)** | **C - Value** | **Ind. Status** |
| 390 | Carex lacustris | lake sedge | 200 | 6 | OBL |
| 500 | Iris virginica shrevei | wild blue iris | 40 | 5 | OBL |
| 390 | Sagittaria latifolia | common arrowhead | 100 | 6 | OBL |
| 500 | Scirpus acutus | hardstem bulrush | 100 | 4 | OBL |
| 390 | Scirpus cyperinus | wool grass | 200 | 6 | OBL |
| 300 | Scirpus fluviatilis | river bulrush | 40 | 6 | OBL |
| 290 | Scirpus pendulus | red bulrush | 50 | 4 | OBL |
| 500 | Scirpus validus creber | great bulrush | 50 | 5 | OBL |
| 300 | Sparganium eurycarpum  | common bur reed | 50 | 4 | OBL |
| **3,560** | **Total per Acre** |

**Measurement:** Revise Article 254.10 to include the following, PERENNIAL PLANTS, WETLAND TYPE – EMERGENT will be measured for payment in units of 100 perennial plants of the type specified.

**Payment:** This work will be paid for at the Contract unit price per unit for PERENNIAL PLANTS, WETLAND TYPE – EMERGENT.

**PERENNIAL PLANTS, WETLAND TYPE – HEAVY RUSH**

**Description:** All work, materials and equipment shall conform to Sections 254 and 1081 of the Standard Specifications except as modified herein.

All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. All wetland emergent type plants shall be planted within clumps. Clumps shall be a minimum of 40 sf. and a maximum of 200 sf. with 1 species per clump.

**Materials:** Revise Article 254.03 Types and Mixtures – Add the following:

Perennial Plants, Wetland Type – Heavy Rush

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rate/Acre** | **Scientific Name** | **Common Name** | **Clump Size (sf.)** | **C - Value** | **Ind. Status** |
| 950 | Scirpus acutus | hardstemmed bullrush | 100 | 6 | OBL |
| 800 | Scirpus americanus | chairmaker's rush | 50 | 5 | OBL |
| 950 | Scirpus atrovirens | dark green rush | 50 | 4 | OBL |
| 800 | Scirpus cyperinus | wool grass | 200 | 6 | OBL |
| 750 | Scirpus fluviatilis | river bulrush | 40 | 4 | OBL |
| 750 | Scirpus pendulus | red bulrush | 50 | 4 | OBL |
| 1000 | Scirpus validus creber | great bulrush | 50 | 5 | OBL |
| **6,000** | **Total per Acre** |

**Measurement:** Revise Article 254.10 to include the following, PERENNIAL PLANTS, WETLAND TYPE – HEAVY RUSH will be measured for payment in units of 100 perennial plants of the type specified.

**Payment:** This work will be paid for at the Contract unit price per unit for PERENNIAL PLANTS, WETLAND TYPE – HEAVY RUSH.

**PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL)**

**Description:** This work shall be in accordance with sections 202, 282, 420, 601, 351, 1080, 1051, 1022, 1001, 1040, 1003, 1020, and 1024 of the Standard Specifications for Road and Bridge Construction insofar as applicable, the details in the plan/typical section and the following provisions.

This work shall consist of earth excavation to the line and plane of the proposed subgrade elevation, as per the plan, place Filter Fabric, Aggregate Base Course Type B CA-7 (crushed), install Pipe Underdrain 4” special, and placement of PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL) as per the Standard Specifications for Road and Bridge Construction insofar as applicable, the details and the following provisions.

**PART 1: CONSTRUCTION REQUIREMENTS**

* 1. **Quality Assurance:**
1. A mandatory pre-bid meeting shall be held with prospective bidders to include contractors, producers and specifiers where the pervious concrete pavement construction process will be described.
2. Prior to submitting a bid the contractor shall submit evidence of two successful pervious concrete pavement projects, each greater than 1,000 ft², including but not limited to the following:
	1. Project name and address, date of placement, owner name and contact information.
	2. Test results including density (unit weight), void content and thickness.

This requirement may be waived by the Engineer provided the contractor demonstrates successful experience in the concrete industry and constructs test panel(s) for inspection and testing, per Section 1.06 of this guide.

1. At least 30 percent of the on-site placement crew shall at a minimum be certified by the NRMCA Pervious Concrete Contractor Certification program or equal.
2. Qualification of Laboratories – The inspection and testing services of the testing laboratory shall be under the direction of a full-time employee registered as a Professional Engineer in the State of Illinois. He shall have a minimum of five (5) years of professional engineering experience in inspection and testing of concrete construction, and the technician shall at a minimum be certified by the NRMCA Pervious Concrete Contractor Certification program or equal.
	1. **Equipment:**
3. Placement equipment shall be capable of compacting the pervious concrete to the specified density and producing a surface finish acceptable to the Engineer. This may be achieved using a Vibratory Truss Screed and Static-Roller, Plate Compactor, Roller Screed, or other means approved by the Engineer.
4. Rolled joint formers shall consist of a small joint roller to which a beveled fin with a minimum depth of ¼ the thickness of the slab has been welded around the circumference of a steel roller.
	1. **Submittals: Administrative requirements for submittal procedures:**

Prior to commencement of the work, the contractor shall submit the following:

1. Concrete materials:
	1. Proposed concrete mixture proportions including all material weights volumes, density (unit weight), water-cementitious ratio, and void content.
	2. Aggregate type, Crushed CA-7 source and grading- ASTM.
	3. Cement, supplementary cementitious materials and chemical admixture manufacturer certifications all meeting ASSTM requirements.
	4. Fibers shall conform to ASTM C1116.
2. Proposed aggregate Crushed CA-7 for use in stormwater storage or detention layer: aggregate type, source, grading and void content (percent porosity).
3. Personnel qualifications: Evidence of qualifications listed under Quality Assurance in Section 1.03 of this guide.
4. Project details: Specific plans including a jointing plan, details, schedule, construction procedures and quality control plan.
5. Subcontractors: List all materials suppliers, subcontractors and testing laboratories to be used on the project.
	1. **Test Panels:**

Prior to construction, test panels(s) shall be placed, and approved by the Engineer. The Engineer may waive this requirement based on contractor qualifications. At contractor’s option, test panels may be constructed as part of project, in approved sections of project and to include the aggregate detention or stormwater detention layer.

1. Test panels(s) shall be constructed in accordance with the plans and specifications. The contractor is to place two test panels, each a minimum 225 ft² at the required project thickness. The panel shall be installed, consolidated, jointed and cured using materials, equipment, and personnel proposed for the project. The test panels are to demonstrate to the Engineer’s satisfaction that in-place unit weights can be achieved and a satisfactory pavement can be installed at the site location.
2. Test panels may be placed at any of the specified pervious concrete pavement locations on the project or at another test site.
3. Quality: Test panels shall have acceptable surface finish, joint details, thickness, porosity and curing procedures and shall comply with the testing and acceptance standards listed in the quality control section of this specification. Test panels shall be tested for thickness in accordance with ASTM C 42. Void structure shall be tested in accordance with ASTM C 138 (Gravimetric Air Determination); and core unit weight determined in accordance with ASTM C 140.
4. Satisfactory performance of the test panels shall be determined by:
	1. Compacted thickness no less than ¼ inch less than specified thickness
	2. Void Structure: 15% minimum; 25% maximum;
	3. Unit weight plus or minus 8 lb/ft³ of the design weight.

If the measured void structure falls below 15% or if measured thickness is greater than ¼ in. less than specified thickness or if measured weight falls less than 8 lb/ft³ below unit weight, the test panel shall be removed at the contractor’s expense. If test panels are found to be satisfactory, they may be left in-place and included in the completed work, at no additional cost to the project.

* 1. **Project Conditions:**

Weather Limitations

The contractor shall not place pervious concrete for pavement when the ambient temperature is 40°F (4°C) or lower, unless a cold weather plan is submitted and permitted in writing by the Engineer. See ACI 306 “Cold Weather Concreting”

The contractor shall not place pervious concrete for pavement when the ambient temperature is 90°F (32°C) or higher, unless a hot weather plan is submitted and permitted in writing by the Engineer. See ACI 305 “Hot Weather Concreting”

* 1. **Pre-paving Conference Discussion:**

A pre-paving conference with the Engineer shall be held within one week prior to beginning placing the pervious concrete. The general contractor shall meet with the pervious concrete supplier, the foreman and a majority of the concrete crew that will form and place the concrete in attendance at this meeting.

**PART 2 MATERIALS**

**2.01 Coarse aggregate for Stormwater Storage Layer:** The storage layershall consist of a **Crushed CA-7** stone or gravel coarse aggregate Meeting “B” quality requirements under section 351 and 1004 of the Illinois Department of Transportation Specification for Road and Bridge Construction. The material shall conform to one of the Standard gradations of those specifications and be capable of having minimum voids of 38% by weight measured in accordance with ASTM Standard C 29. Test reports showing void content shall be submitted to the project manager for aggregates to be used on the project. The designer may select other specific gradations and angularity based upon economics, proximity to the pavement structure and desired flow rates. The storage layer shall be a 12” in thickness depending upon the design considerations.

**2.02 Filter fabric:** The filter layer shall consist of a non woven geotextile fabric. Geotextilesshall be nonwoven geotextile, Marafi 140N or Typar fabric, style 3341 or equivalent as requirements under Section 282 and 1080 of the Illinois Department of Transportation Specifications for Road and Bridge Construction.

**2.03 Isolation (Expansion) joint material:** Isolation joint material shall conform to Illinois Department of Transportation Specification 1051.02.

**2.04 Curing materials:**

1. Polyethylene sheeting – The primary method of curing pervious concrete shall be the placement of a waterproof covering, consisting of a minimum of 6 mil. thick polyethylene sheeting as per Article 1022.03 of the Standard Specifications in conjunction with one method of B below.
2. For prevention of moisture loss, in addition to the primary method of curing: as per the requirements under Section 1022, Article 1022.01 of the Illinois Department of Transportation Specifications for Road and Bridge Construction.
	1. Soybean oil sealer. The Bean by C2 Products or equivalent.
	2. Liquid non-film forming curing compound complying with ASTM C 309, Type 1, Class A unless other type approved by the Engineer, having a moisture loss, when applied at a rate of 200 ft² per gallon shall not be more than 0.055 gr./sq.cm.
	3. Monomolecular film (evaporation retardant), SikaFilm by Sika Corporation, EucoBar by Euclid Chemical Co., Confilm by BASF (Master Builders Technologies) or Catexol Cimfilm by Axim Concrete Technologies, or approved equal, applied per manufacturer’s instructions.
	4. Film-forming sealers or curing agents that clog voids should be avoided.

**2.05 Cement:** Portland Cement Type I, Type II or V shall conform to ASTM C150. Type IP or IS shall conform to ASTM C595.

* 1. **Supplementary Cementitous Materials:** Fly Ash shall conform to ASTM C618. Ground Granulated Blast-Furnace Slag shall conform to ASTM C989.
	2. **Chemical admixtures:**
1. Air-entraining admixtures shall conform to ASTM C260
2. Chemical admixtures shall conform to ASTM C494
	* + 1. Mid-range water reducing admixtures Type A or High-range water reducers Type F or G are permitted.
			2. Extended control admixtures (hydration stabilizers) meeting requirements of ASTM C494 Type B Retarding or Type D Water Reducing/Retarding shall be used.
			3. Viscosity Modifying admixtures are permitted.

**2.08 Aggregates for pervious concrete:** The aggregate used will have a direct influence in the permeability, surface texture, and the appearance of the pervious concrete slab.

* + 1. Fine aggregate for pervious concrete shall meet the size and grading requirements as defined in ASTM D448 and shall comply to ASTM C33. A minimum of 9% passing a #4 sieve or smaller may be used.
		2. Coarse aggregate shall be crushed stone or crushed gravel and shall meet the size and grading requirements as defined in ASTM D448 and shall comply with ASTM C33. Gradation choice shall be limited to sizes 3/8” or 1/2” unless a blend is otherwise approved by the engineer. Combined grading of the coarse and fine aggregates in the proportions proposed for the mixture must have measureable voids in with in accordance with AASTM C29 of 38% or greater.

**2.09 Water:** Water shall comply with ASTM C 94.

**2.10 Mixture Proportions:** The contractor shall furnish to the Engineer a proposed mix design with proportions of materials prior to commencement of work. The data shall include unit weights determined in accordance with ASTM C 29 paragraph 11, jigging procedure. The composition of the proposed concrete mixture shall be submitted to the Engineer for review and/or approval and shall comply with the following provisions unless and alternative composition is demonstrated to comply with the project requirements. Mixture performance will be affected by properties of the particular materials used. Trial mixtures must be tested to establish proper proportions and determine expected behavior. Concrete producers may have mixture proportions for pervious concrete optimized for performance with local materials. Appendix 6 of ACI 211.3R provides a guide for pervious concrete mixture proportioning. Proportions:

1. Concrete mixture unit weight: The gravimetric plastic unit weight at time of placement shall be within eight pounds plus or minus of the design mixture unit weight.
2. Concrete mixture void content: range of 15% to 25%, per ASTM C 138, Gravimetric Air Determination.
3. Cementitious content: range of 350 lbs/yd³ to 600 lb/yd³ total cementitious

content.

1. Supplementary cementitious content: Fly ash: 25% maximum; Slag: 50% maximum. The combined supplementary cementitious content: 60% maximum.
2. Water – cementitious ratio: range from 0.27 to 0.40.
3. Aggregate content: The bulk volume of aggregate per cubic yard (cubic meter) shall be equal to 27ft³ (1m³) when calculated from the dry-rodded density (unit weight) determined in accordance with ASTM C 29 jigging procedure. For freeze-thaw durability, a minimum of 9% of total weight shall be retained on #4 sieves or smaller.
4. Admixtures: shall be used in accordance with the manufacturer’s instructions and recommendations.
5. Fibers: shall be used in accordance with manufacturers’ instructions and recommendations.
6. Mix Water: The quantity of mixing water shall be established to produce a pervious concrete mixture of the desirable workability to facilitate placing, compaction and finishing to the desired surface characteristics. Mix water shall be such that the cement paste displays a wet metallic sheen without causing the paste to flow from the aggregate. (A cement paste with a dull-dry appearance has insufficient mix water for hydration.) Insufficient mix water results in inconsistency in the mix and poor bond strength. High water content results in the paste sealing the void system primarily at the bottom and poor surface bond.
7. Water may be added on-the-job to maintain the proper cement paste consistency.

**PART 3 EXECUTION**

The Engineer shall be notified at least 24 hours prior to all detention layer placement and pervious concrete paving work.

**3.01 Installation:**

1. Stormwater Storage Layer
	1. Subgrade Preparation
		1. Existing subgrade under stormwater detention layer areas shall NOT be compacted or subject to excessive construction equipment traffic prior to coarse aggregate Crushed CA-7 bed placement and may be scarified to improve infiltration rates.
		2. Where erosion of subgrade has caused accumulation of fine materials and/or surface ponding, this material shall be removed with light equipment and the underlying soils scarified to a minimum depth of 6 in. (152 mm) with a York rake or equivalent and light tractor.
		3. Bring subgrade to line, grade, and elevations required.

d. Fill and lightly re-grade any areas damaged by erosion, ponding, or

 traffic compaction before the placing of filter fabric and coarse

 aggregate.

* 1. Installation of storage and filter layers

* + 1. Upon completion of subgrade preparation, the Engineer shall be

notified and shall inspect at his discretion before the contractor may proceed with stormwater detention layer/installation.

* + 1. Filter fabric layer and stormwater storage layer aggregate shall be placed immediately after approval of subgrade preparation. Any accumulation of debris or sediment which has taken place after approval of subgrade shall be removed prior to installation of filter fabric at the contractor’s expense.
		2. Place geotextile filter fabric in accordance with manufacturer’s standards and recommendations. Adjacent strips of filter fabric shall overlap a minimum of 16 in. The contractor shall secure fabric at least 2 ft. outside of bed and take steps necessary to prevent any runoff or sediment from entering the storage bed.
		3. Install coarse aggregate in 6 inch maximum lifts. Lightly compact each layer with equipment, keeping equipment movement over storage bed subgrades to a minimum. Install aggregate to grades required on the drawings.
		4. Following placement of bed aggregate, the filter fabric shall be folded back along all bed edges to protect from sediment washout along bed edges. At least a 2-ft. strip shall be used to protect beds from adjacent bare soil. This edge strip shall remain in place until all bare soils contiguous to beds are stabilized and vegetated. In addition, barrel filter shall be placed at the toe of slopes which may be adjacent to beds to further prevent sediment from washing into beds during site development. As the site is fully stabilized, excess filter fabric along the bed edges can be cut back to coarse aggregate edge.
1. Pervious Concrete Pavement
	1. Pavement Thickness: 8”

Pavement shall be placed to the depth specified in the plans.

* 1. Formwork:

Form materials are permitted to be of wood, steel, or other material sufficient to support the placement equipment and the pervious concrete, and shall be the full depth of the pavement. Forms shall be of sufficient strength and stability to support mechanical equipment without deformation of plan profiles following spreading, strike-off and compaction operations. Forms used with static roller shall have a removable spacer of ½ in. to ¾ in. thickness placed above the finished elevation of pavement. The spacers shall be removed following placement and vibratory strike-off to allow static roller compaction. (Removable spacers may not be necessary if other means of strike-off and consolidation are used).

* 1. Mixing and Hauling:
		1. Production: Pervious concrete shall be manufactured and delivered in accordance with ASTM C94.
		2. Mixing: Mixtures shall be produced in central mixers or in transit (truck) mixers. Concrete shall be mixed for a minimum time specified according to Illinois Department of Transportation specification 1020.11(c).
		3. Transportation: The pervious concrete mixture may be transported to the site and the discharge of individual loads shall be completed within one (1) hour of the introduction of mix water to the cement. Delivery times may be extended to exceed 90 minutes when dosages of hydration stabilizer are increased to maintain the wet metallic sheen on the concrete.
		4. Discharge and Adjustments: Each truckload shall be visually inspected for consistency of concrete mixture. Water addition to adjust the consistency shall be permitted at the point of discharge. A minimum of 70 revolutions at the manufacturer’s designated mixing speed shall be counted following the addition of any water to the mix, prior to further discharge. Discharge shall be a continuous operation and shall be completed as quickly as possible. Concrete shall be deposited as close to its final position as practical and such that discharged concrete is incorporated into previously placed plastic concrete. If consolidation occurs during concrete discharge, placement shall be halted and wet concrete removed.
	2. Placing and Finishing:
		1. The sub-base shall be in a moist condition at time of placement to ensure no reduction in strength of the pavement.
		2. Concrete may be deposited into the forms by mixer truck chute, conveyor or buggy.
		3. Unless otherwise permitted, the contractor shall
			1. Use a roller screed as described under 1.04 Special Equipment.
			2. Utilize a mechanical vibratory or roller screed to strike off the concrete ½ in. to ¾ in. above final height, utilizing the form spacers described in Formwork.
			3. If approved by the Engineer in writing, the contractor may place the pervious concrete with either slip form or vibratory form riding equipment with a following compactive unit. Similarly, strike-off by hand straightedge may be permitted for sidewalks and other small areas followed by compaction.
				1. Care must be taken to prevent closing the void structure of pervious concrete. After mechanical or other approved strike-off and compaction operation, no other finishing operation will be allowed prior to curing. Internal vibration shall not be permitted. If surface vibration is applied, it shall be shut off immediately when forward progress is halted.
				2. Placed concrete shall not be disturbed while in the plastic state.
				3. Curing procedures shall begin immediately after finishing is completed. Placing, finishing and tooled jointing and edging must be completed within a 20-minute window from discharge.
				4. The pervious concrete pavement shall be compacted to the required cross-section.
				5. The slab shall be cross-rolled immediately after covering.
	3. Jointing:
		1. Contraction joints in pervious pavements shall be **saw cut** or can be omitted at the option of the owner, who may, instead, choose to accept or prefer the appearance of random cracking.
		2. Isolation joints shall be used when abutting fixed vertical structures.
	4. Curing:
		1. The pavement surface shall be covered with a minimum of 6 mil thick polyethylene sheet per the requirements under Article 1022.03 of the Illinois Department of Transportation Specifications for Road and Bridge Construction or other approved covering material. Prior to covering, a non-film forming cure or sealer or evaporation reducer shall be sprayed onto the surface. (See reference 2.04 Curing Materials). The plastic cover section shall be taped or glued, and any holes, tears, or cuts in the plastic shall be taped or repaired to prevent moisture loss and to prevent air infiltration under the plastic. All efforts shall be made to cure and cover the pavement within 20 minutes of placement.
		2. The curing cover shall remain securely in place for a minimum of 7 days, uninterrupted. No vehicular traffic shall be permitted on the pavement until curing is complete (7 days) and no truck traffic shall be permitted for at least 14 days. Pedestrian traffic may be permitted on the curing concrete after 24 hours. The Engineer may permit earlier traffic opening times.

**3.02 Quality Control – Pervious Concrete:**

1. The Engineer shall employ a testing laboratory that conforms to the requirements of ASTM E 329 and ASTM C 1077.
2. Traditional concrete testing procedures for strength and slump control are not applicable to this type of pavement material.
3. Unit weight density tests shall be performed for each 150 yd³ or fraction thereof with a minimum of one set of tests for each day’s placement. Unit weight shall be measured in accordance with ASTM C 29. The measure is to be filled and compacted in accordance with ASTM C 29 paragraph 11, jigging procedure. The unit weight of the delivered concrete shall be +/- 8 lb/ft³ of the design fresh unit weight (plastic density).
4. Sampling Plastic concrete shall be sampled in accordance with ASTM C 172.
5. Void content – Void content of the plastic concrete shall be calculated as per ASTM C 138 (Gravimetric Air Determination), and compared to the void percentage required by the hydraulic design. Unless otherwise specified, void content shall be between 15% and 25%.
6. After a minimum of seven (7) days, hardened concrete may be tested at a rate of one set of three cores per 150 yd³ of concrete. placed. Cores shall be drilled in accordance with ASTM C 42. The cores shall be measured for density, thickness, void structure and unit weight. (Note: Cores are not to be tested for strength, as coring damages the specimens making strength results inconsistent and not representative of the in place material.)
7. Thickness – Untrimmed hardened core samples shall be used to determine placement thickness. The average of all production cores when measured for length shall not be more than ½ in. less than the specified design thickness.
8. Core unit weight (density) and void content – The cores shall be tested for unit weight (density) and void content using ASTM C 140. Unit weight (density) of cores trimmed and tested in the saturated condition, per ASTM C 140, paragraph 6.3.1, shall be +/- 8 lb/ft³ of the sample slab hardened unit weight. Void content shall not be lower than 5% below the specified design void content. Void content shall calculated as follows:

1. % Voids = 1 - (Dd/di) \* 100

2. Where: Dd = oven dried density of core

* 1. Di = immersed density of core
	2. **Basis of Payment:**

This work shall be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), including all labor, equipment, excavation, including test panels, filter fabric, saw cutting, aggregate, and all materials necessary to complete this item.

PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL) installed shall be paid for based on the square yards of in-place pavement to the thickness shown on the plans (including materials and labor) to the required void content. This shall include the stone base (Crushed CA-7) and filter fabric.

* 1. **Maintenance:**

Like all pavements, proper maintenance of pervious concrete is mandatory. Maintenance of pervious concrete pavement consists primarily of prevention of clogging of the void structure and the use of vacuuming. For details, please refer to *Pervious* *Concrete Pavement Maintenance Guidelines* published by the National Ready Mixed Concrete Association. These procedures may be required due to construction debris and prior to acceptance by the engineer/owner.

## PARK BENCHES

**Description:** This work shall consist of furnishing and installing park benches as shown on the plans or directed by the Engineer.

**Materials:** Materials shall conform to the following:

Acceptable manufacturers: Park benches manufactured by Belson Outdoors.

The park bench shall be constructed of recycled plastic and weathered wood, and contain the following requirements; backless, 6’ bench, freestanding, RB6NB-P. Powdercoat frame coating shall be Triglycidyl isocyanurate (TGIC) powder, a polyester coating. Color as selected by Engineer (Black).

**Submittals:** Product Data: Include physical characteristics such as shape, dimensions, and finish for each park bench.

Samples for Verification: For the following park benches, showing the color of the powder coat finish. Prepare 2 inch by 3.5-inch (50.8 mm by 87.5mm) powder coat samples (or larger) from the same material to be used to finish the product.

**Construction Requirements:** Store park benches in original undamaged packages and containers until ready for installation. Handle park benches with sufficient care to prevent any scratches or damage to the finish.

Park Benches are to carry a one year manufacturer’s limited warranty against defects in materials and workmanship. The warranty period begins the date the product is shipped from the manufacturer.

Handle and install park benches in accordance with manufacturer’s recommendations and installation instructions. Set park benches at finished grade, level and true to line, in correct relationship to adjacent materials.

**Measurement and Payment:** The work shall be paid for at the contract unit price each for PARK BENCHES which price shall be payment in full for all material, labor and any other items required to complete the work.

##

## STABILIZED CONSTRUCTION ENTRANCE

**Description.** This work shall consist of furnishing, installing, maintaining and removing a stabilized pad of aggregate underlain with filter fabric as shown on the plans or directed by the Engineer.

**Materials:** Materials shall conform to the following:

Aggregate size: IDOT Coarse Aggregate Graduation: CA-3 per Section 1004.

Filter Fabric shall consist of synthetic polymers composed of at least 85 percent by weight polypropylene, polyesters, polyamides, polyethylene, polyolefins, or polyvinylidene-chlorides. The geotextile shall be free of any chemical treatment or coating that significantly reduces its porosity. Fibers shall contain stabilizers and/or inhibitors to enhance resistance to ultraviolet lights.

**Construction Requirements:** The course aggregate shall be a thickness of 6 inches or more. The stone entrance should not be filled until the area has been inspected and approved by the Engineer.

The rock shall be dumped and spread into place in approximately horizontal layers not more than 3 feet in thickness. It shall be placed in a manner to produce a reasonable homogeneous stable fill that contains no segregated pockets or larger or small fragments or large unfilled space caused by bridging of larger fragments. No compaction will be required beyond that resulting from the placing and spreading operations.

The minimum width and length shall be 25 and 100 feet, respectively.

All surface water flowing or diverted toward the construction entrance shall be piped across the entrance. Any pipe used for this will be considered incidental to the stabilized construction entrance.

Maintenance of this pay item may include cleaning, reshaping/grading, as well as additional aggregate at the direction of the engineer. Maintenance shall be included in the cost of this pay item. The entrance shall remain in place and be maintained until the disturbed area is stabilized. Any sediment spilled onto public right-of-ways must be removed immediately.

**Measurement and Payment:** The work shall be paid for at the contract unit price square yard for STABILIZED CONSTRUCTION ENTRANCE, which price shall be payment in full for all material, labor and any other items required to complete the work.

##

**WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL**

**Description:** This work shall consist of application of non-selective, non-residual, aquatic-safe herbicide (Rodeo TM, or equivalent) at spot locations within the project limits for control of broadleaf weeds. This spot work will occur in the Typha species and Phragmites australis species control areas, and throughout the entire site as need before any planting or seeding activities begin.

**Schedule:** This work shall be completed during the growing season, in the mid to late-summer for Typha (Cattail) species and in early September though early October for Phragmites australis (Common Reed). This work must be completed at least two weeks prior to any seeding or planting in the given area. The specific management areas are designated on the Vegetative Control and Removal Plans.

**Materials:** The non-selective and non-residual herbicide shall have the following formation:

1. Active ingredient:

Glyphosate, N-(phosphonomethyl) glycine in the form of its monoammonium salt

93.96%

1. Inert ingredient:

6.04%

Equivalent to 85% of the acid, glyphosate

The CONTRACTOR shall submit a certificate including the following prior to starting the work:

1. The chemical names of the compound and the percentage by weight of ingredients which must match the above specified formulation.
2. A statement that the material is in a solution which will form a satisfactory emulsion for use when diluted with water for normal spraying conditions.
3. A statement that the herbicide, when mixed with water, will be completely soluble and dispersible and remain in suspension with continuous agitation.
4. A statement describing the products proposed for use when the manufacturer of herbicide requires that surfactants, drift control agents, or other additives will be used with the product. These tank mix additives shall be used as specified by the manufacturer. Required additive will not be paid for separately.

**General requirements:** The non-selective and non-residual herbicides shall be sprayed at a rate of 5.5 pounds per acre. 5.5 pounds of herbicide formulation shall be diluted with a minimum of 55 gallons of water and applied as a mixture. Water dilution of the mixture will not be paid for separately.

The CONTRACTOR is required to communicate with the ENGINEER to receive all required approvals in a timely way and to assure that the ENGINEER can accurately document the work performed. The CONTRACTOR shall obtain approval from the ENGINEER to proceed with spraying at each location 24 hours prior to the proposed spray operations. All material shall be brought to the spray area in the original, unopened containers supplied by the manufacturer. It shall be the CONTRACTOR’S responsibility to assure that all chemical containers are opened and added to the spray mixture in the presence of the ENGINEER.

**Payment:** WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL, will be paid for in acres of areas maintained as specified. Water for dilution of the mixture and additives required for application will not be paid for as separate items, but the costs shall be considered as included in the contract price for WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL and no additional compensation will be allowed.

**DEWATERING (SPECIAL)**

**Description:** The work consists of providing labor, tools, equipment, and materials necessary to dewater the related work areas of the Project to relatively dry conditions and maintain suitable working conditions so that the modifications and improvements may be constructed in the dry.

**Products:** The Contractor shall be responsible for the choice of product(s) and equipment, as well as “means and methods” for Site Dewatering Work to be performed subject to the review of the Engineer. All products and “means and methods” selected shall be adequate for the intended use and application. The Engineer’s review does not relieve the Contractor from compliance with the requirements of the permit and the requirements of this special provision.

**Submittals:** The Contractor shall submit to the Engineer a description of the dewatering techniques and equipment to be used, together with detail drawings showing lengths of discharge piping and point(s) of discharge including erosion control procedures to be reviewed.

Note: The Engineer’s review of dewatering techniques and equipment shall in no way be construed as creating any obligation on the part of the Engineer for same.

**Responsibility:** The Contractor shall be solely responsible for choice of product(s) and equipment; for the design, installation, and operations; as well as “means and methods” of performing the Work; and subsequent removal of dewatering systems and their safety and conformity with local codes, regulations, and these Specifications. All product(s), equipment, and “means and methods” selected shall be adequate for the intended use and application. Review by the Engineer does not relieve the Contractor from compliance with the requirements specified herein.

**General Requirements:** The Contractor shall select the pumps he/she desires to use and the rate at which the pumps discharge, but adequate protection at the pump discharge shall be provided by the Contractor, subject to review by the Engineer. The Contractor shall ensure that downstream water quality shall not be impaired.

At all times during the excavation period and until completion and acceptance of the Work at Final Inspection, ample means and equipment shall be provided with which to remove promptly and dispose of properly all water entering any excavation or any other parts of the Work. Water pumped or drained from the work required for this Contract shall be disposed of in a safe and suitable manner without damage to adjacent property or streets or other work under construction. Water shall not be discharged onto streets without adequate protection of the surface at the point of discharge. No water shall be discharged into sanitary sewers. Any and all damages caused by dewatering shall be promptly repaired by the Contractor. The Contractor is responsible for providing any and all labor, materials, and equipment need for Dewatering in order to meet the scheduled completion of the project.

**Measurement and Payment:** Payment for the work specified will be made at the contract lump sum price for DEWATERING (SPECIAL).

## TRASH RECEPTACLES

**Description:** This work shall consist of furnishing and installing trash receptacles as shown on the plans or directed by the Engineer.

**Materials:** Materials shall conform to the following:

Acceptable manufacturers: R.J. Thomas Manufacturing lids Model # TG-24 PC1

The trash receptacles shall be green 55-gallon barrels for trash, and blue 55-gallon barrels with R.J. Thomas Manufacturing lids Model # TG-24 PC1 for recycling.

**Measurement and Payment:** The work shall be paid for at the contract unit price each for TRASH RECEPTACLES which price shall be payment in full for all material, labor, and any other items required to complete the work.

## biCYCLE rackS

**Description:** This work shall consist of furnishing and installing bike racks as shown on the plans or directed by the Engineer.

**Quality Assurance:** Installer Qualifications: An experienced installer who has completed installation of bicycle racks similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.

Manufacturer Qualifications: A firm experienced in manufacturing bike racks similar to those required for this project and with a record of successful in-service performance.

Source Limitations: Obtain each color, finish, shape and type of bike rack from a single source with resources to provide components of consistent quality in appearance and physical properties.

**References:** ASTM A500 Standard Specification for Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes

**Materials:** Materials shall conform to the following:

Acceptable manufacturers: Bicycle racks manufactured by Madrax, a division of Trilary, Inc.

The bike rack shall be the UX200-SF-P bike rack as manufactured by Madrax, a division of Trilary, Inc. Rack shall be constructed of ASTM A500, 2” Square Structural Steel tubing (2” x 0.148” thick wall) or better. Powder coating shall be Triglycidyl isocyanurate (TGIC) powder, a polyester coating. Color as selected by Engineer (Black).

**Submittals:** Product Data: Include physical characteristics such as shape, dimensions, bicycle parking capacity and finish for each bicycle parking rack.

Samples for Verification: For the following bicycle parking rack/s, showing the color of the powder coat finish. Prepare 2 inch by 3.5-inch (50.8 mm by 87.5mm) powder coat samples (or larger) from the same material to be used to finish the product.

**Construction Requirements:** Store bike racks in original undamaged packages and containers until ready for installation. Handle powder coated bicycle parking racks with sufficient care to prevent any scratches or damage to the finish.

Bicycle racks are to carry a one year manufacturer’s limited warranty against defects in materials and workmanship. The warranty period begins the date the product is shipped from the manufacturer.

Handle and install bike racks in accordance with manufacturer’s recommendations and installation instructions. Set bike racks secured to concrete, level and true to line, in correct relationship to adjacent materials.

**Measurement and Payment:** The work shall be paid for at the contract unit price each for BICYCLE RACK which price shall be payment in full for all material, labor and any other items required to complete the work.

**AGGREGATE BICYCLE PATH (SPECIAL)**

**Description:** This work shall consist of the earth excavation and installation of geotextile fabric, course fine aggregate, and respread of the excavated material per the typical section.

**Materials:**

All materials shall meet the requirements of the following articles of Section 1000 Materials.

Item

¾ to 1 inch aggregate base course Type B (CA-6 gradation) 1004.0

Crushed limestone (FA-21) 1003.0

Geotextile woven fabric 1080.02

**Construction Requirements:** The designated path will be excavated to half the total depth, with a geotextile fabric placed at the bottom of the excavated area, 8 inches of CA-6 gravel compacted every 4 inches, and a 4 inch surface of FA-21 crushed limestone. The path will be 10-feet wide, with 4 feet of mowed turf grass on either side constructed per the AGGREGATE BICYCLE PATH (SPECIAL) typical section in the plan set. The entire length of the trail will be. The turf grass, SEEDING, CLASS 1B will be installed and paid for under a separate pay item.

**Method of Measurement:** AGGREGATE BICYCLE PATH (SPECIAL) will be measured for payment in square yards installed.

**Basis of Payment:** AGGREGATE BICYCLE PATH (SPECIAL) will be paid for at the contract unit price per square yard. The turf grass will be paid for under a separate pay item, SEEDING, CLASS 1B.

## WILD BLACK CURRANT

**Description:**

All work, materials and equipment shall conform to Section 253 and 1081 of the Standard Specifications except as modified herein.

All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site.

**Materials:**

Revised Article 253.02 Materials – Add the following:

Shrub – Ribes americanum (Wild Black Currant)

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientific Name** | **Common Name** | **Size** | **Type** |
| Ribes americanum                | Wild Black Currant | 2’ Height | Container |

**Measurement:**

Revise Article 253.16 to include the following, WILD BLACK CURRANT will be measured for payment in place as each individual plant.

**Payment:**

This work will be paid for at the contract unit price per each for WILD BLACK CURRANT.

**EROSION CONTROL BLANKET (SPECIAL)**

**Description:** This work shall conform to Article 251.04 of the Standard Specifications, except as modified herein or on the plans.

Erosion control blanket shall be installed in all seeded areas as shown in the plans. The erosion control blanket shall be “North American Green S75BN” as manufactured by North American Green, Inc. or an approved equal. The blanket shall be placed within 24 hours after seeding operations have been completed on the areas specified. Prior to placing the blanket, the areas to be covered shall be relatively free of all rocks or clods over 40mm in diameter, and all sticks or other foreign material which will prevent the close contact of the blanket with the seed bed. The blanket shall be placed perpendicular to the slope. The top of the blanket shall be toed into the top of slope in a 6” (minimum) deep trench and backfilled. Staples shall be placed at a rate of 3.5 staples per square yard. The blanket shall overlap 4” (minimum) with adjacent blanket. Staples in organic soils shall be a “North American Green a 12-inch ECO-Stake” as manufactured by North American Green, Inc. or an approved equal to ensure adequate anchorage in the organic soils.

**Measurement:** This work shall be measured for payment in place per square yards of actual surface area covered.

**Payment:** This work shall be paid for at the contract unit price per square yard for EROSION CONTROL BLANKET (SPECIAL). The price shall include all necessary labor, material and equipment needed to install the work described herein and as specified on the plans.

**SEEDING, CLASS 4 (MODIFIED) - DRY TO MESIC PRAIRIE**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Dry to Mesic Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 2.500 | Andropogon scoparius | little bluestem | 5 | FACU- |
| 2.000 | Bouteloua curtipendula | side oats | 8 | UPL |
| 0.250 | Elymus virginicus | Virginia wild rye  | 4 | FACW- |
| 0.060 | Eragrostis spectabilis | purple love grass | 3 | UPL |
| 0.150 | Koeleria cristata | june grass | 7 | UPL |
| 1.000 | Sporobolus heterolepis | prairie dropseed | 10 | FACU- |
| **5.960** | **Total Weight of Seeds (LB PLS)** |
|  |
| **Cover Crop:** |
| 6.000 | Lolium multiflorum | annual rye | 0 | UPL |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) DRY TO MESIC PRAIRIE will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) DRY TO MESIC PRAIRIE.

**SEEDING, CLASS 4 (MODIFIED) - LOW PROFILE PRAIRIE**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Low Profile Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 3.000 | Andropogon scoparius | little bluestem grass | 5 | FACU |
| 2.000 | Bouteloua curtipendula | side oats grama grass | 8 | UPL |
| 0.250 | Elymus virginicus | Virginia wild rye | 4 | FACW |
| 0.250 | Koeleria cristata | june grass | 7 | UPL |
| 0.250 | Stipa spartea | needle grass | 7 | UPL |
| **5.750** | **Total Weight of Seeds (LB PLS)** |
|  |
| **Cover Crop:** |
| 6.000 | Lolium multiflorum | annual rye | 0 | UPL |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) LOW PROFILE PRAIRIE will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) LOW PROFILE PRAIRIE.

**SEEDING, CLASS 4 (MODIFIED) - WET TO MESIC PRAIRIE**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Wet to Mesic Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 1.500 | Andropogon gerardii | big bluestem | 5 | FAC- |
| 0.350 | Calamagrostis canadensis | blue joint grass | 3 | OBL |
| 1.000 | Elymus virginicus | Virginia wild rye | 4 | FACW- |
| 0.500 | Glyceria striata | fowl manna grass | 4 | FACW |
| 0.500 | Hierchloe odorata | vanilla grass | 9 | FACW |
| 1.000 | Leersia oryzoides | rice cut grass | 4 | OBL |
| 0.250 | Panicum virgatum | switch grass | 5 | FAC+ |
| 0.250 | Spartina pectinata | cord grass | 4 | FACW+ |
| 0.125 | Carex annectens xanthocarpa | yellow fruited sedge | 7 | FAC |
| 0.125 | Carex bebbii | Bebb's sedge  | 6 | OBL |
| 0.063 | Carex buxbaumii | sedge | 9 | OBL |
| 0.125 | Carex normalis | normal sedge | 5 | FAC |
| 0.125 | Carex vulpinoidea | fox sedge  | 2 | OBL |
| **5.913** | **Total Weight of Seeds (LB PLS)** |
|  |
| **Cover Crop:** |
| 1.000 | Agrostis alba palustris | bent grass | 10 | OBL |
| 3.000 | Lolium multiflorum  | annual rye | 0 | UPL |
| 0.250 | Polygonum pennsylvanicum | Pennsylvania knotweed | 0 | FACW+ |
| **4.250** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) WET TO MESIC PRAIRIE will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) WET TO MESIC PRAIRIE.

**SEEDING, CLASS 4 (MODIFIED) – DRY TO MESIC SAVANNA**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified)Dry to Mesic Savanna

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.250 | Bromus latiglumis | ear-leafed brome | 5 | FACW- |
| 0.250 | Bromus pubescens | woodland brome | 5 | FACU+ |
| 0.125 | Carex blanda | common wood sedge | 1 | FAC |
| 0.125 | Carex pensylvanica | common oak sedge | 5 | UPL |
| 2.000 | Elymus canadensis | Canada wild rye | 4 | FAC- |
| 0.500 | Elymus villosus | silky wild rye | 5 | FACU |
| 2.365 | Elymus virginicus | Virginia wild rye | 4 | FACW- |
| 0.016 | Festuca obtusa | nodding fescue | 5 | FACU+ |
| 0.250 | Hystrix patula | bottlebrush grass | 5 | UPL |
| 0.250 | Koelaria cristata | June grass | 7 | UPL |
| **6.131** | **Total Weight of Seeds (LB PLS)** |
| **Cover Crop:** |
| 3.000 | Lolium multiflorum  | annual rye |  | UPL |
| **3.000** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) DRY TO MESIC SAVANNAwill be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) DRY TO MESIC SAVANNA.

## SEEDING, CLASS 4 (MODIFIED) – MESIC WOODLAND

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Mesic Woodland

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.250 | Agrostis perennans | upland bent grass | 3 | FAC- |
| 0.125 | Bromus kalmii | Kalm's brome | 10 | FAC |
| 0.350 | Cinna arundinacea | wood reed grass | 5 | FACW |
| 0.125 | Elymus riparius | riverbank rye | 5 | FAC- |
| 0.350 | Elymus villosus | silky wild rye | 5 | FACU |
| 3.000 | Elymus virginicus | Virginia wild rye | 4 | FACW- |
| 0.016 | Festuca obtusa | nodding fescue | 5 | FACU+ |
| 2.000 | Glyceria striata | fowl manna grass | 4 | FACW |
| 0.250 | Hystrix patula | bottlebrush grass | 5 | UPL |
| 0.350 | Muhlenbergia mexicana | leafy satin grass | 5 | FACW |
| 0.240 | Carex blanda | common wood sedge | 1 | FAC |
| 0.250 | Carex grisea | wood gray sedge | 2 | FAC- |
| 0.063 | Carex normalis | normal sedge | 5 | FAC |
| 0.016 | Carex radiata | straight-styled wood sedge | 6 | FAC- |
| 0.016 | Carex rosea  | culry-styled wood sedge | 4 | UPL |
| 0.250 | Carex shortiana | Short's sedge | 10 | FAC |
| 0.031 | Carex sprengellii | long-beaked sedge | 9 | FACU |
| **7.682** | **Total Weight of Seeds (LB PLS)** |
|  |
| **Cover Crop:** |
| 3.000 | Lolium multiflorum  | annual rye | 0 | UPL |
| **3.000** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) MESIC WOODLAND will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) MESIC WOODLAND.

**SEEDING, CLASS 4 (MODIFIED) - SHADY FLOODPLAIN**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Shady Floodplain

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.400 | Bromus latiglumis | ear-leafed brome | 5 | FACW- |
| 0.062 | Carex blanda | common wood sedge | 1 | FAC |
| 0.500 | Cinna arundinacea | wood reed grass | 5 | FACW |
| 1.000 | Elymus riparius | riverbank rye | 5 | FAC- |
| 0.768 | Elymus villosus | silky wild rye | 5 | FACU |
| 2.000 | Elymus virginicus | Virginia wild rye | 4 | FACW- |
| 0.150 | Festuca obtusa | nodding fescue | 5 | FACU+ |
| 0.500 | Glyceria striata | fowl manna grass | 4 | FACW |
| 0.250 | Leersia virginica | white grass | 7 | FACW |
| **5.630** | **Total Weight of Seeds (LB PLS)** |
|  |
| **Cover Crop:** |
| 4.000 | Lolium multiflorum  | annual rye | 0 | UPL |
| **4.000** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) SHADY FLOODPLAIN will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) SHADY FLOODPLAIN.

## SEEDING, CLASS 4 (MODIFIED) - FEN

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Fen

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 1.000 | Andropogon gerardii | big bluestem | 5 | FAC- |
| 0.250 | Bromus ciliatus | fringed brome | 10 | OBL |
| 0.250 | Bromus kalmii | prairie brome | 10 | FAC |
| 0.200 | Calamagrostis canadensis | blue joint grass | 3 | OBL |
| 0.200 | Calamagrostis inexpansa | bod reed | 5 | FACW+ |
| 0.150 | Carex bebbii | Bebb's sedge  | 6 | OBL |
| 0.075 | Carex buxbaumii | Andes mint sedge | 9 | OBL |
| 0.075 | Carex comosa | bristly sedge | 5 | OBL |
| 0.075 | Carex granularis | pale sedge | 4 | FACW+ |
| 0.250 | Carex hystericina | porcupine sedge | 5 | OBL |
| 0.250 | Carex scoparia | lance-fruited oval sedge | 7 | FACW |
| 0.075 | Carex stipata | fox sedge | 3 | OBL |
| 0.125 | Muhlenbergia glomerata | marsh wild timothy | 10 | OBL |
| 0.075 | Muhlenbergia mexicana | leafy satin grass | 5 | FACW |
| 2.000 | Sorghastrum nutans | Indian grass | 5 | FACU+ |
| **5.050** | **Total Weight of Seeds (LB PLS)** |
|  |
| **Cover Crop:** |
| 1.000 | Agrostis alba palustris | bent grass | 10 | OBL |
| 3.000 | Lolium multiflorum  | annual rye | 0 | UPL |
| 0.250 | Polygonum pennsylvanicum | Pennsylvania knotweed | 0 | FACW+ |
| **4.250** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) FEN will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) FEN.

## SEEDING, CLASS 4 (MODIFIED) - sedge meadow

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 4 (Modified) Sedge Meadow

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 1.000 | Agrostis alba palustris | bent grass | 10 | OBL |
| 0.500 | Calamagrostis canadensis | blue joint grass | 3 | OBL |
| 1.000 | Elymus canadensis | Canada wild rye | 4 | FAC- |
| 1.000 | Elymus virginicus | Virginia wild rye | 4 | FACW- |
| 1.500 | Leersia oryzoides | rice cut grass | 4 | OBL |
| 0.375 | Poa palustris | marsh blue grass | 9 | FACW+ |
| 0.500 | Spartina pectinata | prairie cord grass | 4 | FACW+ |
| 0.125 | Carex annectens xanthocarpa | small yellow fox sedge | 7 | FAC |
| 0.125 | Carex bebbii | Bebb's sedge | 6 | OBL |
| 0.125 | Carex comosa  | bottlebrush sedge | 5 | OBL |
| 0.125 | Carex cristatella | crested sedge | 4 | FACW+ |
| 0.031 | Carex granularis | pale sedge | 4 | FACW+ |
| 0.250 | Carex hystericina | porcupine sedge | 5 | OBL |
| 0.125 | Carex lupuliformis | knobbed hop sedge | 10 | OBL |
| 0.125 | Carex projecta | loose-headed oval sedge | 4 | FACW+ |
| 0.053 | Carex retrorsa | retrorse sedge | 10 | OBL |
| 0.125 | Carex scoparia | pointed broom sedge  | 7 | FACW |
| 0.125 | Carex stipata | awl fruited sedge | 3 | OBL |
| 0.031 | Carex urticulata | yellow lake sedge | 10 | OBL |
| 0.500 | Carex vulpinoidea | fox sedge | 2 | OBL |
| **7.740** | **Total Weight of Seeds (LB PLS)** |
| **Cover Crop:** |
| 3.000 | Echinochloa crusgalli | barnyard grass |  | FACW |
| **3.000** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 4 (MODIFIED) SEDGE MEADOW will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 4 (MODIFIED) SEDGE MEADOW.

## SEEDING, CLASS 5 (MODIFIED) - DRY TO MESIC PRAIRIE

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. The seed mix shall be supplied with the appropriate inoculants. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Dry to Mesic Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.125 | Allium cernuum | nodding wild onion | 7 | FAC- |
| 0.125 | Amorpha canescens | lead plant | 9 | UPL |
| 0.125 | Anemone canadensis | meadow anemone | 4 | FACW |
| 0.060 | Artemisia caudata | beach wormwood | 5 | UPL |
| 0.030 | Asclepias sullivantii | prairie milkweed | 8 | UPL |
| 0.030 | Asclepias tuberosa | butterfly weed | 7 | UPL |
| 0.030 | Asclepias verticillata | whorled milkweed | 1 | UPL |
| 0.030 | Aster azureus | sky blue aster | 8 | UPL |
| 0.015 | Aster dumosus | rice button aster | 5 | FAC+ |
| 0.030 | Aster ericoides | heath aster | 5 | FACU- |
| 0.125 | Aster laevis | smooth blue aster | 9 | UPL |
| 0.030 | Aster sericeus | silky aster | 10 | UPL |
| 0.125 | Baptisia leucantha | white indigo | 8 | FACU+ |
| 0.060 | Carex muehlenbergii | sand bracted sedge | 5 | UPL |
| 0.250 | Cassia fasciculata\* | partridge pea | 5 | FACU- |
| 0.150 | Ceanothus americanus | New Jersey tea | 6 | UPL |
| 0.030 | Celastrus scandens  | bittersweet | 4 | UPL |
| 0.015 | Coreopsis palmata | prairie coreopsis | 6 | UPL |
| 0.060 | Coreopsis tripteris | tall coreopsis | 5 | FAC |
| 0.015 | Desmodium illinoiensis | Illinois ticktrefoil | 6 | UPL |
| 0.030 | Echinacea pallida | pale coneflower | 8 | UPL |
| 0.125 | Eryngium yuccifolium | rattlesnake master | 9 | FAC+ |
| 0.060 | Euphorbia corrolata | flowering spurge | 2 | UPL |
| 0.060 | Heuchera americana | american alum root | 10 | FACU- |
| 0.015 | Kuhnia eupatorioides corymbulosa | false boneset | 6 | UPL |
| 0.125 | Lespedeza capitata\* | roundhead bush clover | 4 | FACU |
| 0.250 | Lespedeza virginica | slender bush clover | 4 | UPL |
| 0.030 | Liatris aspera | blazing star | 6 | UPL |
| 0.125 | Parthenium integrifolium | wild quinine | 8 | UPL |
| 0.125 | Penstemon digitalis | foxglove beardtongue | 4 | FAC- |
| 0.015 | Petalostemum candidum | white prairie clover | 9 | UPL |
| 0.500 | Petalostemum pupureum | purple prairie clover | 9 | UPL |
| 0.030 | Potentilla arguta  | prairie cinquefoil | 9 | FACU- |
| 0.125 | Rosa carolina | pasture rose | 5 | FACU- |
| 0.500 | Rudbeckia hirta | black-eyed susan | 1 | FACU |
| 0.060 | Rudbeckia subtomentosa | sweet coneflower | 9 | FACU+ |
| 0.030 | Silphium laciniatum | compass plant | 5 | UPL |
| 0.030 | Silphium terebinthinaceum | prairie dock | 5 | FACU |
| 0.030 | Solidago graminifolia | grass-leaved goldenrod | 4 | FACW- |
| 0.060 | Solidago juncea | early goldenrod | 5 | UPL |
| 0.125 | Solidago nemoralis | old-field goldenrod | 4 | UPL |
| 0.015 | Solidago rigida | stiff goldenrod | 4 | FACU- |
| 0.015 | Solidago speciosa | showy goldenrod | 7 | UPL |
| 0.060 | Tephrosia virginiana | goats rue | 8 | UPL |
| 0.125 | Tradescantia ohiensis  | Ohio spiderwort | 2 | FACU+ |
| 0.125 | Verbena stricta | hoary vervain  | 4 | UPL |
| 0.125 | Vernonia fasciculata | common ironweed | 5 | FACW |
| 0.030 | Veronicastrum virginicum | Culver's root | 7 | FAC |
| 0.125 | Zizia aurea | golden alexanders | 7 | FAC+ |
| **4.470** | **Total Weight of Seeds (LB PLS)** |
|  | \* = innoculant required |  |  |  |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) DRY TO MESIC PRAIRIE will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) DRY TO MESIC PRAIRIE.

**SEEDING, CLASS 5 (MODIFIED)- LOW PROFILE PRAIRIE**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Low Profile Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.125 | Allium cernuum | nodding wild onion | 7 | FAC- |
| 0.125 | Amorpha canescens | lead plant | 9 | UPL |
| 0.063 | Anemone canadensis | meadow anemone | 4 | FACW |
| 0.063 | Asclepias sullivantii | prairie milkweed | 8 | UPL |
| 0.126 | Asclepias tuberosa | butterfly weed | 7 | UPL |
| 0.063 | Asclepias verticillata | whorled milkweed | 1 | UPL |
| 0.031 | Aster drummondii | Drummond's Aster | 2 | FACU |
| 0.047 | Aster laevis | smooth blue aster | 9 | UPL |
| 0.063 | Aster novae-angliae | New England aster  | 4 | FACW |
| 0.031 | Aster sericeus | silky aster | 10 | UPL |
| 0.015 | Baptisia leucantha | wild white indigo | 8 | FACU+ |
| 0.015 | Coreopsis palmata | prairie coreopsis | 6 | UPL |
| 0.063 | Echinacea pallida | pale purple coneflower | 8 | UPL |
| 0.125 | Eryngium yuccifolium | rattlesnake master | 9 | FAC+ |
| 0.063 | Heuchera americana | american alum root | 10 | FACU- |
| 0.031 | Lespedeza capitata\* | roundhead bushclover | 4 | FACU |
| 0.015 | Liatris aspera | button blazing star | 6 | UPL |
| 0.015 | Monarda fistulosa | wild bergamot | 4 | FACU |
| 0.125 | Penstemon digitalis | foxglove beardtongue | 4 | FAC- |
| 0.015 | Petalostemum candidum | white prairie clover | 9 | UPL |
| 0.063 | Petalostemum purpureum | purple prairie clover | 9 | UPL |
| 0.031 | Potentilla arguta | prairie cinquefoil | 9 | FACU- |
| 0.031 | Pycnanthemum virginianum | common mountain mint | 5 | FACW+ |
| 0.500 | Rudbeckia hirta | black--eyed susan | 1 | FACU |
| 0.015 | Rudbeckia subtomentosa | sweet coneflower | 9 | FACU+ |
| 0.125 | Solidago nemoralis | old-field goldenrod | 4 | UPL |
| 0.046 | Solidago rigida | stiff goldenrod | 4 | FACW- |
| 0.031 | Solidago speciosa | showy goldenrod | 7 | UPL |
| 0.063 | Tradescantia ohiensis | ohio spiderwort | 2 | FACU+ |
| 0.125 | Verbena stricta | hoary vervain | 4 | UPL |
| 0.063 | Zizia aurea | golden alexanders | 7 | FAC+ |
| **3.203** | **Total Weight of Seeds (lbs)** | \* = innoculant required |   |  |
|  | \* = innoculant required |  |  |  |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) LOW PROFILE PRAIRIE will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) LOW PROFILE PRAIRIE.

## SEEDING, CLASS 5 (MODIFIED) - WET TO MESIC PRAIRIE

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Wet to Mesic Prairie

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.063 | Asclepias incarnata | swamp milkweed | 4 | OBL |
| 0.125 | Aster laevis | smooth blue aster | 9 | UPL |
| 0.031 | Aster novae-angliae | New England aster | 4 | FACW |
| 0.031 | Aster praealtus | willow aster | 9 | OBL |
| 0.250 | Baptisia leucantha | wild white indigo | 8 | FACU+ |
| 0.031 | Chelone glabra | turtle head | 8 | OBL |
| 0.150 | Desmodium canadense | showy tick trefoil | 4 | FAC- |
| 0.259 | Eupatorium maculatum | spotted joe pye weed | 4 | OBL |
| 0.125 | Eupatorium perfoliatum | boneset | 4 | FACW+ |
| 0.500 | Helenium autumnale | sneezeweed | 5 | FACW+ |
| 0.063 | Hypericum pyramidatum | great St. John's wort | 10 | FAC+ |
| 0.125 | Iris virginica shrevei | blue flag | 5 | OBL |
| 0.031 | Juncus dudleyi | Dudley's rush | 4 | FAC |
| 0.062 | Juncus torreyi | Torrey rush | 4 | FACW |
| 0.313 | Liatris pycnostachya | prairie gayfeather | 8 | FAC- |
| 0.188 | Liatris spicata | spiked gayfeather | 6 | FAC |
| 0.031 | Lobelia siphilitica | great blue lobelia | 6 | FACW+ |
| 0.063 | Lycopus americanus | water horehound | 5 | OBL |
| 0.031 | Lythrum alatum | winged loosestrife | 7 | OBL |
| 0.033 | Mimulus ringens | monkey flower | 6 | OBL |
| 0.031 | Monarda fistulosa | bergamot | 4 | FACU |
| 0.031 | Penthorum sedoides | ditch stonecrop | 5 | OBL |
| 0.063 | Physostegia virginiana | false dragonhead | 6 | OBL |
| 0.160 | Pycnanthemum virginianum | common mountain mint | 5 | FACW+ |
| 0.250 | Rudbeckia hirta | black-eyed susan | 1 | FACU |
| 0.063 | Rudbeckia laciniata | wild golden glow | 5 | FACW+ |
| 0.500 | Scirpus atrovirens | dark green rush | 4 | OBL |
| 0.125 | Silphium perfoliatum | cup plant | 5 | FACW- |
| 0.063 | Solidago riddellii | Riddell's goldenrod | 7 | OBL |
| 0.125 | Solidago rigida  | stiff goldenrod | 4 | FACW- |
| 0.046 | Verbena hastata | blue vervain | 4 | FACW+ |
| 0.031 | Vernonia fasciculata | common ironweed | 5 | FACW |
| 0.063 | Veronicastrum virginicum | Culver's root | 7 | FAC |
| 0.031 | Zizia aurea | golden alexander | 7 | FAC+ |
| **4.087** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) WET TO MESIC PRAIRIE will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) WET TO MESIC PRAIRIE.

**SEEDING, CLASS 5 (MODIFIED) – DRY TO MESIC SAVANNA**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Dry to Mesic Savanna

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.016 | Agastache nepetoides | yellow giant hyssop | 5 | FACU |
| 0.016 | Agastache scrophulariaefolia | purple giant hyssop | 5 | UPL |
| 0.031 | Anemone cylindrica | thimbleweed | 6 | UPL |
| 0.250 | Aquilegia canadensis | columbine | 6 | FAC- |
| 0.125 | Aster lateriflorus | calico aster | 4 | FACW- |
| 0.125 | Aster sagittifolius | arrow-leafed aster | 5 | UPL |
| 0.125 | Aster sagittifolius drummondii | Drummond's aster | 2 | FACU |
| 0.061 | Aster shortii | Short's aster | 8 | UPL |
| 0.061 | Aureolaria grandiflora pulchra | yellow false foxglove | 8 | UPL |
| 0.125 | Baptisia leucantha | white wild indigo | 8 | FACU+ |
| 0.031 | Campanula americana | tall bellflower | 3 | FAC |
| 0.031 | Clematis virginiana | virgin's bower | 4 | FAC |
| 0.500 | Echinacea purpurea | purple coneflower | 3 | UPL |
| 0.125 | Geranium maculatum | wild geranium | 4 | UPL |
| 0.125 | Helianthus divaricatus | woodland sunflower | 5 | UPL |
| 0.016 | Hypericum pyramidatum | great St. John's wort | 10 | FAC+ |
| 0.062 | Juncus tenuis | path rush | 0 | FACU+ |
| 0.125 | Monarda fistulosa | wild bergamot | 4 | FACU |
| 0.031 | Penstemon digitalis | foxglove beardtongue | 4 | FAC- |
| 0.031 | Polygonatum canaliculatum | solomon's seal | 3 | FACU |
| 0.016 | Pycnanthemum pilosum | hairy mountain mint | 5 | UPL |
| 0.125 | Ratibida pinnata | yellow coneflower | 4 | UPL |
| 0.031 | Rosa blanda | early wild rose | 5 | FACU |
| 0.250 | Rudbeckia hirta | black-eyed susan | 1 | FACU |
| 0.125 | Rudbeckia subtomentosa | sweet black-eyed susan | 9 | FACU+ |
| 0.125 | Silphium integrifolium | rosinweed | 5 | UPL |
| 0.125 | Silphium perfoliatum | cup plant | 5 | FACW- |
| 0.031 | Smilacina racemosa | feathery false Solomon's seal | 3 | FACU |
| 0.125 | Solidago flexicaulis | zigzag goldenrod | 7 | FACU |
| 0.125 | Solidago juncea | early goldenrod | 5 | UPL |
| 0.125 | Solidago ulmifolia | elm-leafed goldenrod  | 5 | UPL |
| 0.125 | Teucrium canadense | germander | 3 | FACW |
| 0.062 | Thaspium barbinode | hairy meadow parsnip | 8 | UPL |
| 0.125 | Tradescantia ohiensis | spiderwort | 2 | FACU+ |
| 0.031 | Triosteum perfoliatum | late horse gentian | 5 | UPL |
| 0.063 | Verbena urticifolia | white vervain | 5 | UPL |
| 0.061 | Veronicastrum virginicum | Culver's root | 7 | FAC |
| 0.062 | Zizia aurea | golden alexanders | 7 | FAC+ |
| **3.744** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) DRY TO MESIC SAVANNAwill be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) DRY TO MESIC SAVANNA.

**SEEDING, CLASS 5 (MODIFIED) – MESIC WOODLAND**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Mesic Woodland

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.063 | Anemone virginiana | Tall anemone | 5 | UPL |
| 0.063 | Aquilegia canadensis | Columbine | 6 | FAC- |
| 0.063 | Arisaema triphyllum | Jack-in-the-Pulpit | 4 | FACW- |
| 0.031 | Aster lateriflorus | calico aster | 4 | FACW- |
| 0.063 | Aster macrophyllus | Big-leaved Aster | 8 | UPL |
| 0.125 | Aster sagittifolius | Arrow-leaved Aster | 8 | UPL |
| 0.063 | Aster shortii | Short's Aster | 8 | UPL |
| 0.063 | Blephilia hirsuta | Hairy Wood Mint | 8 | FACU- |
| 0.063 | Campanula americana | Tall Bellflower | 3 | FAC |
| 0.063 | Clematis virginiana | virgin's bower | 4 | FAC |
| 0.016 | Cryptotaenia canadensis | honewort | 2 | FAC |
| 0.031 | Eupatorium purpureum | purple joe pye weed | 7 | UPL |
| 0.063 | Eupatorium rugosum | white snake root | 4 | UPL |
| 0.031 | Geranium maculatum | Wild Geranium | 4 | UPL |
| 0.375 | Heracleum maximum | cow parsnip | 5 | UPL |
| 0.031 | Lonicera prolifera | Yellow Honeysuckle | 7 | UPL |
| 0.063 | Osmorhiza claytoni | wooly sweet cicely | 3 | FACU- |
| 0.016 | Phlox divaricata | Wild Sweet William | 5 | FACU |
| 0.031 | Physostegia virginiana speciosa | false dragonhead | 7 | FACW |
| 0.250 | Polygonatum canaliculatum | Smooth Solomon's Seal | 3 | FAC |
| 0.031 | Prenanthes alba | Rattlesnake Root | 5 | FACU |
| 0.125 | Ribes americanum | Wild Black Currant | 7 | FACW |
| 0.063 | Rudbeckia laciniata | green coneflower | 5 | FACW+ |
| 0.031 | Sanicula canadensis | Canadian Black Snakeroot | 2 | FACU+ |
| 0.125 | Silphium perfoliatum | cup plant | 5 | FACW- |
| 0.031 | Solidago caesia | Blue-stem Goldenrod | 7 | FACU |
| 0.125 | Solidago flexicaulis | Zigzag Goldenrod | 7 | FACU |
| 0.063 | Solidago ulmifolia | Elm-leaved Goldenrod | 5 | UPL |
| 0.031 | Thaspium trifoliatum | Yellow Meadow Parsnip | 7 | UPL |
| 0.063 | Zizia aurea | golden alexanders | 7 | FAC+ |
| **2.255** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) MESIC WOODLAND will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) MESIC WOODLAND.

**SEEDING, CLASS 5 (MODIFIED) - SHADY FLOODPLAIN**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Shady Floodplain

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.620 | Actinomeris alternifolia | wingstem | 5 | FACW |
| 0.620 | Aquilegia canadensis | wild columbine | 6 | FAC- |
| 0.620 | Aster lateriflorus | side flowering aster | 4 | FACW- |
| 0.150 | Aster shortii | Short's aster | 8 | UPL |
| 0.125 | Boehmeria cylindrica | false nettle  | 2 | OBL |
| 0.060 | Campanula americana | tall bellflower | 3 | FAC |
| 0.150 | Eupatorium rugosum | white snake root | 4 | UPL |
| 0.250 | Impatiens capensis | orange jewelweed | 3 | FACW |
| 0.150 | Penstemon digitalis | foxglove beard tongue | 4 | FAC- |
| 0.150 | Phlox divaricata | blue phlox | 5 | FACU |
| 0.150 | Pilea pumila | clearweed | 5 | FACW |
| 0.150 | Polygonatum canaliculatum | smooth Solomon's sal | 3 | FACU |
| 0.150 | Pycnanthemum virginianum | mountain mint | 5 | FACW+ |
| 0.125 | Ratibida pinnata  | yellow coneflower | 4 | UPL |
| 0.310 | Rudbeckia lacinata | wild goldenglow  | 5 | FACW+ |
| 0.031 | Solidago flexicaulis | broadleaved goldenrod | 7 | FACU |
| 0.031 | Solidago gigantea | old field goldenrod | 4 | FACW |
| 0.125 | Solidago ulmifolia | elm leaved goldenrod | 5 | UPL |
| 0.310 | Veronicastrum virginicum | Culver's root | 7 | FAC |
| 0.062 | Zizia aurea | golden alexanders | 7 | FAC+ |
| **4.339** | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) SHADY FLOODPLAIN will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) SHADY FLOODPLAIN.

**SEEDING, CLASS 5 (MODIFIED) - FEN**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Fen

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | **Scientific Name** | **Common Name** | **C-Value** | **Ind. Status** |
| 0.075 | Agalinis purpurea | purple false foxglove | 7 | OBL |
| 0.750 | Angelica atropurpurea | great angelica | 7 | OBL |
| 0.400 | Asclepias incarnata | swamp milkweed | 4 | OBL |
| 0.075 | Aster lateriflorus | side-flowering aster | 4 | FACW- |
| 0.150 | Aster novae-angliae | New England aster | 4 | FACW |
| 0.075 | Aster puniceus | bristly aster | 8 | OBL |
| 0.075 | Aster umbellatus | flat-topped aster | 9 | FACW |
| 0.075 | Cacalia plantaginea | prairie Indian plantain | 10 | FAC |
| 0.075 | Caltha palustris | marsh marigold | 5 | OBL |
| 0.150 | Chelone glabra | turtle head | 8 | OBL |
| 0.075 | Circium muticum | swamp thistle | 10 | OBL |
| 0.150 | Eupatorium maculatum | spotted joe pye weed | 4 | OBL |
| 0.150 | Eupatorium perfoliatum | boneset | 4 | FACW+ |
| 0.075 | Helenium autumnale | sneezeweed | 5 | FACW+ |
| 0.300 | Iris virginica shrevei | blue flag iris | 5 | OBL |
| 0.075 | Lycopus americanus | water horehound | 5 | OBL |
| 0.075 | Lycopus virginicus | bugleweed | 9 | OBL |
| 0.075 | Lysimachia quadriflora | whorled loosestrife | 10 | UPL |
| 0.075 | Mentha arvensis | wild mint | 5 | OBL |
| 0.075 | Onoclea sensibilis  | sensitive fern | 8 | FACW |
| 0.075 | Pedicularis lanceolata | fen betony | 9 | OBL |
| 0.075 | Pycnanthemum virginianum | common mountain mint | 5 | FACW+ |
| 0.250 | Rosa palustris | swamp rose | 7 | OBL |
| 0.250 | Rumex orbiculatus | great water dock | 8 | OBL |
| 0.075 | Saxifraga pensylvanica | swamp saxifrage | 10 | FACW |
| 0.250 | Scirpus acutus | hard stem bulrush | 6 | OBL |
| 0.250 | Silphium perfoliatum | cup plant | 5 | FACW- |
| 0.075 | Solidago ohioensis | Ohio goldenrod | 9 | OBL |
| 0.150 | Solidago patula | swamp goldenrod | 9 | OBL |
| 0.250 | Solidago riddellii | Riddell's goldenrod | 7 | OBL |
| 0.150 | Zizia aurea | golden alexander | 7 | FAC+ |
| **4.875**  | **Total Weight of Seeds (LB PLS)** |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) FEN will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) FEN.

**SEEDING, CLASS 5 (MODIFIED) - SEDGE MEADOW**

**Description:** All work, materials and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The seed mix shall be supplied in pounds of Pure Live Seed. All native species shall be local genotype and shall be from a radius not to exceed 100 miles from the site. Fertilizer is not required.

**Materials:** Revise Article 250.07 Seeding Mixtures – Add the following to Table 1:

Seeding, Class 5 (Modified) Sedge Meadow

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LB PLS per Acre** | Scientific Name | **Common Name** | **C-Value** | **Ind. Status** |
| 0.375 | Alisma subcordataum | common water plantain | 4 | OBL |
| 0.063 | Asclepias incarnata | swamp milkweed | 4 | OBL |
| 0.125 | Aster novae-angliae | New England aster | 4 | FACW |
| 0.063 | Aster puniceus | bristly aster | 8 | OBL |
| 0.031 | Aster simplex | panicled aster | 3 | OBL |
| 0.250 | Bidens cernua | nodding bur marigold | 5 | OBL |
| 0.031 | Cacalia suaveolens | sweet Indian plantain | 10 | OBL |
| 0.375 | Eleocharis obtusa | blunt spike rush | 3 | OBL |
| 0.031 | Epilobium coloratum | cinnamon willow herb | 3 | OBL |
| 0.125 | Eupatorium maculatum | spotted joe pye weed | 4 | OBL |
| 0.031 | Eupatorium perfoliatum | boneset | 4 | FACW+ |
| 0.125 | Gentiana andrewsii | bottle gentian | 8 | FACW |
| 0.063 | Helenium autumnale  | sneezeweed | 5 | FACW+ |
| 0.031 | Juncus balticus littoralis | lakeshore rush | 6 | FACW |
| 0.031 | Juncus dudleyi | Dudley's rush | 4 | FAC |
| 0.031 | Juncus effusus | common Rush | 7 | OBL |
| 0.063 | Juncus torreyi | Torrey's rush | 4 | FACW |
| 0.125 | Liatris spicata | marsh blazing star | 6 | FAC |
| 0.063 | Lycopus americanus | common water horehound | 5 | OBL |
| 0.015 | Lythrum alatum | winged loosestrife | 7 | OBL |
| 0.031 | Mimulus ringens | monkey flower | 6 | OBL |
| 0.125 | Monarda fistulosa | wild bergamot | 4 | OBL |
| 0.031 | Onoclea sensibilis | sensitive fern | 8 | FACW |
| 0.125 | Penstemon digitalis | foxglove beardtongue | 4 | FAC- |
| 0.150 | Penthorum sedoides | ditch stonecrop | 5 | OBL |
| 0.063 | Physostegia virginiana | obedient plant | 6 | OBL |
| 0.031 | Pycnanthemum virginianum | common mountain mint | 5 | FACW+ |
| 0.015 | Rosa palustris | swamp rose | 7 | OBL |
| 0.500 | Scirpus atrovirens | dark green rush | 4 | OBL |
| 0.063 | Scirpus cyperinus | wool grass | 6 | OBL |
| 0.063 | Scirpus pendulus | red bulrush | 4 | OBL |
| 0.031 | Scirpus validus creber | soft stem bulrush | 5 | OBL |
| 0.015 | Solidago gigantea | late goldenrod | 4 | FACW |
| 0.063 | Solidago ohioensis | Ohio goldenrod | 9 | OBL |
| 0.125 | Solidago riddellii | Riddell's goldenrod | 7 | OBL |
| 0.063 | Sphenopholis intermedia  | slender wedge grass | 4 | FAC |
| 0.250 | Thalictrum dasycarpum | purple meadow rue | 5 | FACW- |
| 0.250 | Verbena hastata | blue vervain | 4 | FACW+ |
| 0.125 | Vernonia fasciculata | common ironweed | 5 | FACW+ |
| 0.063 | Zizia aurea | golden alexanders | 7 | FAC+ |
| **4.229** | Total Weight of Seeds (LB PLS) |

Notes:

1. Purity and germination tests no older than twelve months must be submitted for all seed supplied to verify quantities of bulk seed required to achieve the LB PLS specified.
2. Horticultural grade vermiculite shall be added at a rate of one bushel per acre to facilitate the equal spreading of the seeds over an entire acre.

**Measurement:** SEEDING, CLASS 5 (MODIFIED) SEDGE MEADOW will be measured for payment in acres of surface area of seeding.

**Payment:** This work will be paid for at the Contract unit price per acre for SEEDING, CLASS 5 (MODIFIED) SEDGE MEADOW.

**PLANTER FENCE (SPECIAL)**

**Description:** All work, materials, and equipment shall be in accordance with Section 665 of the Standard Specifications except as modified herein.

**Materials:** PLANTER FENCE (SPECIAL) shall be a minimum of 18” in height and consist of galvanized steel chicken wire fencing with a maximum opening size not to exceed 1”. The corners of the planter fence shall consist of wooden stakes, 24 inches minimum height, to allow for 6 inches to be pounded into the soil. String will be weaved to cover the top of the chicken wire fencing to allow no large animals to get inside fence. The wooden stakes should be placed approximately 8 feet apart, and the fence should be a maximum of 20 feet wide. Refer to the Planter Fence Detail in the Plan Set

**General Requirements:** The PLANTER FENCE (SPECIAL) shall be installed around the areas of the Perennial Plants, Wetland Type prior to the installation of the plantings or as directed by the ENGINEER.

**Measurement:** PLANTER FENCE (SPECIAL) will be measured for payment in acres of areas of Wetland Type Planting.

**Payment:** This work will be paid for at the Contract unit price per acre for PLANTER FENCE (SPECIAL).

## dust control watering

**Description:** This work shall consist of the control of dust resulting from the construction operations exclusively. This item shall not be used in the compaction of earth embankments.

The dust shall be controlled by the uniform application of sprinkled water and shall be applied only when directed and in a manner approved by the Engineer.

All equipment used for this work shall meet with the Engineer’s approval and shall be equipped with adequate measuring devices for meeting the exact amount of water discharge. All water used shall be properly documented by ticket or other approved means.

**Measurement:** This work will be measured in units of gallons of water applied. One unit will be equivalent to 1,000 gallons of water applied.

**Payment:** This work will be paid for at the contract unit price per unit as DUST CONTROL WATERING, which price shall be payment in full for furnishing all labor, water and equipment for controlling dust as specified.

**FENCE REMOVAL**

**Description:** This work shall consist of removal and disposal of fencing as indicated on the plans and backfilling of post holes. Fencing shall include woven wire fence, barbed wire fence, board on board fence, chain link fence, split rail, and board fence. Removal shall include fencing and posts. Material shall be disposed of according to Article 202.03 of the Standard Specifications.

**Measurement:** FENCE REMOVAL will be measured for payment per lineal foot of fence removed. This shall include removal of the fence material and posts.

**Payment:** FENCE REMOVAL shall be paid for at the contract unit price per foot.

**SELECTIVE CLEARING**

**Description:** This work shall consist of extensive removal and disposal of shrubs, brush, debris, and selected trees up to six inches in diameter. All trees and shrubs to be saved shall be protected as provided in Article 201.05 of the Standard Specifications. Location for Selective Clearing and the specified vegetation to be cleared or saved is designated on the Vegetative Control and Removal Plans.

The undesirable trees and brush shall be cut flush with the ground and all stubs shall be treated with a resprout herbicide approved by the Engineer to prevent re-growth from the stumps. Branches of remaining trees shall be pruned off up to 6 feet from the ground.

All cleared areas shall be graded, trimmed, smoothed, and finished uniformly to the satisfaction of the Engineer with equipment approved by the Engineer. Disposal of material shall be done in accordance with Article 202.02.

No trees shall be removed until the Owner’s on-site representative verifies the removal limits.

**Measurement:** SELECTIVE CLEARING will be measured in acres. Areas not meeting the satisfaction of the Engineer shall not need measured for payment.

**Payment:** This work will be paid for at the contract unit price in acres of SELECTIVE CLEARING. Payment for SELECTIVE CLEARING shall include the cost of all minor grading, debris removal and disposal, trimming, pruning, smoothing, finishing, labor, materials, tools, and equipment required to complete the work as specified herein and to the satisfaction of the Engineer.

**CONTROL BURN**

**Description:** The CONTRACTOR will be responsible for obtaining a burn permit from the Illinois Environmental Protection Agency. The type of permit needed will be for Prairie and Ecological Management Burns. The contact information for the IEPA is found below:

State of Illinois

Environmental Protection Agency

Division of Air Pollution Control

P.O. Box 19506

Springfield, IL 62794-9506

This work will be performed during the spring following herbicide operations. The areas burned will consist of the open areas of existing vegetation as designated on the Vegetative Control and Removal Plans. The work will also be completed in the areas designated as Typha species and Phragmites australis control areas on the Vegetative Control and Removal Plans. The entire area designated for control burn and ground preparation for seeding in the plan set will also be herbicided for cool season Eurasian grasses prior to the control burn. The work will be done on low-wind, and cool temperature days.

The CONTRACTOR will coordinate with the Village of South Elgin and Countryside Fire Protection District 48 hours prior to the time a burn is scheduled. The ENGINEER and all adjacent land owners will be notified 24 hours in advance of the controlled burn. The CONTRACTOR will be solely responsible for these activities.

**Schedule:** This work shall be completed in the spring, during the months of March or April, weather permitting, on an as needed basis to control weeds and promote native species growth. This work must be completed at least 2 months before any seeding in the given area.

**Payment:** CONTROL BURN work will be paid for based on acres for the area burned.

**CHAIN LINK FENCE BERM BARRIER**

**Description:** This work shall consist of excavation of a trench in the berm, and the installation of a chain link fence in the trench as specified in the plans and detail or as determined by the Engineer.

**Materials:** Material shall be according to the following.

 Item Article/Section

Chain Link Fence……………………………………………...….1006.27

**Construction Requirements:** The chain link fence (to be provided by others) shall be installed in an excavated trench in the constructed berm. The fence shall be installed near the center of the berm to a depth equal to the height of the fence plus 6 inches and backfilled with consolidated materials.

**Method of Measurement:** CHAIN LINK FENCE BERM BARRIER will be measured for payment as foot of fence installed and backfilled

**Basis of Payment:** CHAIN LINK FENCE BERM BARRIER shall be paid for at the contract unit price per lineal foot.

**CLEMSON LEVELER**

**Description:** This work shall consist of the construction and installation of a Clemson Leveler as specified in locations, and as shown on the detain in the plans or determined by the Engineer.

**Materials:** Materials shall be according to the following.

 Item Article/Section

1. Polyvinyl Chloride (PVC) Pipe………………………………...….1040.03
2. Galvanized nuts, eyebolts,flat washers, lock washers and wire...1006.27
3. Galvanized welded wire……………………………………………1006.28

**Construction Requirements:** The Clemson Leveler shall be built to the dimensions and materials as shown on the plan detail. The Clemson Leveler shall be laid on top of the existing ground, and staked to the bottom at the inlet end of the leveler.

**Method of Measurement:** CLEMSON LEVELER shall be measured as each

**Basis of Payment:** The work shall be paid for at the contract unit price each for CLEMSON LEVELER, which price shall be made payment in full for all material and labor.

**ITEMS ORDERED BY THE ENGINEER (SPECIAL)**

When additional work not indicated in the contract is requested in writing by the Engineer during construction, this additional work shall be measured and paid for as described in Articles 104.02 and 109.04.

Payment for all additional work shall be made from the ITEMS ORDERED BY THE ENGINEER (SPECIAL) pay items, which shall be measured in units. A unit shall be valued at one dollar ($1.00).

## MANAGEMENT OF SOIL EROSION AND SEDIMENT CONTROL

**Description:**

This work shall consist of the management of the soil erosion aspects of the project, including but not limited to, the cost of the Soil Erosion and Sediment Control Manager (SESCM), weekly co-inspections, inspections following rainfalls, preparation and adherence to the Soil Erosion and Sediment Control Schedule and the Stormwater Pollution Prevention Plan (SWPPP) and maintenance not included in the various pay items.

**General Requirements:**

This work item will be performed to assure compliance with the Contract plans and specifications; and the latest editions of the Illinois Environmental Protection Agency “Illinois Urban Manual”, and the National Pollutant Discharge Elimination System (NPDES) permit No. ILR10. The Contractor will be required to sign the NPDES permit application prior to starting the work.

Soil Erosion and Sediment Control Manager:

The Contractor shall assign to the project an employee to serve in the capacity of Soil Erosion and Sediment Control Manager. This employee shall be certified in soil erosion and sediment control (e.g., C.P.E.S.C.) or 4 years of experience in management of soil erosion and sediment control for construction sites.

The SESCM shall have the primary responsibility and sufficient authority for the implementation of the approved Soil Erosion and Sediment Control Schedule and methods of operation, including both on-site and off-site activities. The schedule shall indicate the sequence of construction, implementation and maintenance of control, temporary and permanent stabilization and the various stages of soil disturbance.

 At a minimum the schedule will include:

1. The clearing of areas needed to install the initial soil erosion and sediment control measures.
2. Construction of the initial control measures.
3. Completion of the contract work: i.e., earthwork, storm sewer, permanent erosion control and soil stabilization.
4. Removal of temporary erosion control measures.

The Contractor shall submit for approval at least 10 days prior to the preconstruction meeting the Soil Erosion and Sediment Control Schedule.

The SESCM shall attend the preconstruction meeting and submit to the Engineer their credentials for approval. Any changes in the SESCM shall require a resubmission. The resubmission shall be timed to ensure that a Soil Erosion and Sediment Control Manager is assigned to the project at all times.

The SESCM shall be responsible for maintaining the SWPPP, including any updates and changes.

Preconstruction Conference:

At the preconstruction conference, the SESCM will discuss the draft Soil Erosion and Sediment Control Schedule with the Contractor. Subsequently a field meeting will be held prior to any soil disturbance to review the schedule.

Inspections Meetings:

Soil Erosion and Sediment Control meetings will be initiated and conducted by the Engineer, attended by the Soil Erosion and Sediment Control Manager and an owner’s representative. The first meeting will be held at least five days prior to the start of work. Subsequent meetings will be held weekly and after every ½” or more of rainfall.

Maintenance not included in the various pay items but included under this special provision.

Excavation required for the removal of accumulated sediment, vegetation, and debris from basins, sumps, berms, the area adjacent to perimeter erosion barriers, ditch checks and any other cleanout excavation of accumulated sediment. Removed material may be disposed of onsite or offsite in accordance with Article 202.03.

**Measurement:**

Management of Soil Erosion and Sediment Control will not be measured for payment.

**Payment:**

Payment for MANAGEMENT OF SOIL EROSION AND SEDIMENT CONTROL will not be paid for directly but shall be considered as included in the various pay items for soil erosion and sediment control.