

208

June 12, 2026 Letting

Notice to Bidders, Specifications and Proposal



**Contract No. 66T32
LIVINGSTON County
Section 2026-1 POLLINATOR PRES & REST
Route FAI 55
District 3 Construction Funds**

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)



- 1. TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. June 12, 2026 prevailing time at which time the bids will be publicly opened from the iCX SecureVault.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 66T32
LIVINGSTON County
Section 2026-1 POLLINATOR PRES & REST
Route FAI 55
District 3 Construction Funds**

Herbicide, seeding, landscaping, and maintenance for this pollinator project located along FAI 55 (I-55) at the Limestone Rest Area sites south of Pontiac, IL.

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Gia Biagi,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2026

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-22) (Revised 1-1-26)

SUPPLEMENTAL SPECIFICATIONS

<u>Std. Spec. Sec.</u>	<u>Page No.</u>
109 Measurement and Payment	1
202 Earth and Rock Excavation	2
204 Borrow and Furnished Excavation	3
207 Porous Granular Embankment	4
211 Topsoil and Compost	5
214 Grading and Shaping Ditches	6
406 Hot-Mix Asphalt Binder and Surface Course	7
407 Hot-Mix Asphalt Pavement (Full-Depth)	9
420 Portland Cement Concrete Pavement	10
502 Excavation for Structures	11
504 Precast Concrete Structures	12
509 Metal Railings	13
522 Retaining Walls	14
540 Box Culverts	15
542 Pipe Culverts	35
550 Storm Sewers	44
586 Granular Backfill for Structures	51
601 Pipe Drains, Pipe Underdrains, and French Drains	52
630 Steel Plate Beam Guardrail	53
632 Guardrail and Cable Road Guard Removal	54
644 High Tension Cable Median Barrier	55
665 Woven Wire Fence	56
701 Work Zone Traffic Control and Protection	57
781 Raised Reflective Pavement Markers	59
782 Reflectors	60
801 Electrical Requirements	62
821 Roadway Luminaires	65
1003 Fine Aggregates	66
1004 Coarse Aggregates	67
1010 Finely Divided Minerals	69
1020 Portland Cement Concrete	70
1030 Hot-Mix Asphalt	73
1040 Drain Pipe, Tile, and Wall Drain	74
1042 Precast Concrete Products	75
1061 Waterproofing Membrane System	76
1067 Luminaire	77
1097 Reflectors	84
1102 Hot-Mix Asphalt Equipment	85

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

<u>CHECK SHEET #</u>		<u>PAGE NO.</u>
1	Additional State Requirements for Federal-Aid Construction Contracts	87
2	Subletting of Contracts (Federal-Aid Contracts)	90
3	X EEO	91
4	X Specific EEO Responsibilities Nonfederal-Aid Contracts	101
5	X Required Provisions - State Contracts	106
6	Asbestos Bearing Pad Removal	112
7	Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal	113
8	Temporary Stream Crossings and In-Stream Work Pads	114
9	Construction Layout Stakes	115
10	Use of Geotextile Fabric for Railroad Crossing	118
11	Subsealing of Concrete Pavements	120
12	Hot-Mix Asphalt Surface Correction	124
13	Pavement and Shoulder Resurfacing	126
14	Patching with Hot-Mix Asphalt Overlay Removal	127
15	Polymer Concrete	129
16	Reserved	131
17	Bicycle Racks	132
18	Temporary Portable Bridge Traffic Signals	134
19	Nighttime Inspection of Roadway Lighting	136
20	English Substitution of Metric Bolts	137
21	Calcium Chloride Accelerator for Portland Cement Concrete	138
22	Quality Control of Concrete Mixtures at the Plant	139
23	Quality Control/Quality Assurance of Concrete Mixtures	147
24	Reserved	163
25	Reserved	164
26	Temporary Raised Pavement Markers	165
27	Restoring Bridge Approach Pavements Using High-Density Foam	166
28	Portland Cement Concrete Inlay or Overlay	169
29	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	173
30	Longitudinal Joint and Crack Patching	176
31	Concrete Mix Design – Department Provided	178
32	Station Numbers in Pavements or Overlays	179

TABLE OF CONTENTS

LOCATION OF PROJECT	1
DESCRIPTION OF PROJECT	1
START DATE.....	2
COMPLETION DATE PLUS WORKING DAYS.....	2
QUANTITIES	2
EXPERIENCE.....	2
STAFF	7
PROSECUTION OF WORK.....	8
WILDFLOWER SEEDING (SPECIAL)	8
WILDFLOWER INTERSEEDING (SPECIAL).....	25
SOIL AMENDMENTS	38
EROSION CONTROL BLANKET (SPECIAL).....	41
PRAIRIE WEED CONTROL.....	42
MOWING	51
APPENDIX A – LIST OF TARGET WEED SPECIES.....	53
APPENDIX B – GLOSSERY OF TERMS USED IN THIS SPECIAL PROVISION.....	56
CEMENT, FINELY DIVIDED MINERALS, ADMIXTURES, CONCRETE, AND MORTAR (BDE)	58
COMPENSABLE DELAY COSTS (BDE)	73
EROSION CONTROL BLANKET (BDE)	76
ILLINOIS WORKS APPRENTICESHIP INITIATIVE – STATE FUNDED CONTRACTS (BDE)..	78
REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)	79
SIGN PANELS AND APPURTENANCES (BDE).....	80
SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE).....	82
SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE).....	82
SUBMISSION OF BIDDERS LIST INFORMATION (BDE)	83
SUBMISSION OF PAYROLL RECORDS – STATE CONTRACT (BDE).....	83
SURVEYING SERVICES (BDE)	83
VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE).....	84
WORK ZONE TRAFFIC CONTROL DEVICES (BDE).....	84

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 55 (I-55), Section 2026-1 Pollinator Pres & Rest, Livingston County, Contract No. 66T32 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

This project is located along FAI 55 (I-55) at the Limestone Rest Area sites south of Pontiac, IL. The northbound rest area is located at approximately mile post 193.0 and the southbound rest area is located at approximately mile post 194.0.

DESCRIPTION OF PROJECT

This work shall consist of brush removal and herbicide applications within the proposed planting areas, seed bed preparation including the application of soil amendment products, native seed installation, erosion control blanket installation, and maintenance of seeded and landscaped areas for a period of two (2) growing seasons following installations. The planting areas include slopes that may make portions of the work challenging. Contractors are encouraged to familiarize themselves with the sites and ensure their equipment is appropriate for site conditions prior to bidding.

START DATE

The Department will mow the planting areas on or around July 1st, 2026. The first herbicide application shall commence on or around August 1st, 2026. The follow-up herbicide application shall occur on or around September 1st, 2026. Seed installation shall occur on or around September 22nd, 2026. Prairie Weed Control shall commence April 1st, 2027. This is an estimated schedule; the final schedule shall be determined upon contract award.

COMPLETION DATE PLUS WORKING DAYS

All WILDFLOWER SEEDING, WILDFLOWER INTERSEEDING, and EROSION CONTROL BLANKET work shall be completed by **November 30th, 2026**, plus an additional **five (5) working days** for any jobsite restoration and removing of any traffic control devices. All SOIL AMENDMENTS, MOWING, and PRAIRIE WEED CONTROL WORK shall be completed by **November 30th, 2028**.

QUANTITIES

The quantities specified in this contract are estimated. Payment will be made only for the actual quantities completed.

The Contractor is hereby informed and shall understand that payment will be made only for actual quantities utilized and accepted as satisfactory. Payment for work will be made in accordance with the items listed in the Summary of Quantities in the plans.

EXPERIENCE

All work shall be performed by a Contractor with at least five (5) years of documented experience in vegetation establishment from seed for the purposes of ecological restoration.

Documentation of Contractor's experience must be provided with their bid using the attached form or similar format.

All work shall be performed by the Contractor, subcontracting is not permitted.

At or prior to the Pre-Construction Conference, the Contractor shall furnish copies of required personnel training records, documented personnel experience, required certifications, and proposed equipment lists to the Engineer.

VENDOR DOCUMENTATION OF DOCUMENTED PRIOR EXPERIENCE

- Must meet requirements given in the special provisions for this project.
- At least one reference project must be from a time period that will demonstrate the 5 years' experience required.

Vendor Name: _____

	<u>PROJECT 1</u>	<u>PROJECT 2</u>	<u>PROJECT 3</u>	<u>PROJECT 4</u>
Project Name and Location				
Reference Name and Phone Number or Email Address				
Native Plant Community Type (e.g. prairie, wetland, forest, etc.)				
Land Use Type (e.g. Nature Preserve, State Park, CRP, municipal park, NWR, etc.)				
Approximate Acreage				
Type of Work Completed				
Date Completed				

DOCUMENTATION OF VENDOR'S ONSITE STAFF EXPERIENCE – PROJECT MANAGER	
<ul style="list-style-type: none"> - Must meet requirements given in the special provisions for this project. - Copies of training records, certifications, etc. that document the Vendor's staff experience required for this project shall be submitted with this form. 	
VENDOR NAME:	
STAFF POSTION: PROJECT MANAGER	
Name:	
Start Date:	
Education:	School Name:
	Graduation Year:
	Applicable Degree:
Years of Experience (Midwest Systems):	# of Total Years Experience:
	Reference Project 1 (Name/Location/Date Completed):
	Reference Project 2 (Name/Location/Date Completed):
Years of Field Experience (Ecosystem Restoration):	# of Total Years Experience:
	Reference Project 1 (Name/Location/Date Completed):
	Reference Project 2 (Name/Location/Date Completed):
Pesticide Commercial License:	General Standards: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Rights-of-Way Category: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Aquatics Category: <input type="checkbox"/> YES <input type="checkbox"/> NO
Will this staff member also fill the Crew Supervisor role?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Will this staff member also fill a Crew Member role?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Additional Information:	

DOCUMENTATION OF VENDOR'S ONSITE STAFF EXPERIENCE – CREW SUPERVISOR	
<ul style="list-style-type: none"> - Must meet requirements given in the special provisions for this project. - Copies of training records, certifications, etc. that document the Vendor's staff experience required for this project shall be submitted with this form. 	
VENDOR NAME:	
STAFF POSITION: CREW SUPERVISOR	
Name:	
Start Date:	
Years of Experience (Ecosystem Restoration):	# of Total Years Experience:
	Reference Project 1 (Name/Location/Date Completed):
	Reference Project 2 (Name/Location/Date Completed):
Pesticide Commercial License:	General Standards: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Rights-of-Way Category: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Aquatics Category: <input type="checkbox"/> YES <input type="checkbox"/> NO
Will this staff member also fill a Crew Member role?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Additional Information:	

DOCUMENTATION OF VENDOR'S ONSITE STAFF EXPERIENCE – CREW MEMBER	
<ul style="list-style-type: none"> - Must meet requirements given in the special provisions for this project. - Copies of training records, certifications, etc. that document the Vendor's staff experience required for this project shall be submitted with this form. 	
VENDOR NAME:	
STAFF POSITION: CREW MEMBER	
Name:	
Start Date:	
Years of Experience (Ecosystem Restoration):	# of Total Years Experience:
	Reference Project 1 (Name/Location/Date Completed):
	Reference Project 2 (Name/Location/Date Completed):
Pesticide Commercial License:	General Standards: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Rights-of-Way Category: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Aquatics Category: <input type="checkbox"/> YES <input type="checkbox"/> NO
Additional Information:	

STAFF

The Contractor shall provide staff that meet these minimum requirements:

PROJECT MANAGER

The Contractor shall designate an employee as the Project Manager (PM). This person shall be the sole representative of the Contractor for this work and shall be the point of contact for the Engineer. The PM shall meet the following minimum qualifications:

- At a minimum, hold a bachelor's degree in natural resources, ecology, biology, or a related field
- Have a minimum of five (5) years of documented full-time professional ecosystem restoration experience in Midwestern ecosystems/habitat types
- Have a minimum of one (1) year of documented full-time field experience in ecosystem restoration
- Hold a current State of Illinois Pesticide Commercial Applicator license with the Rights-of-Ways and Aquatics categories
- If they meet the minimum requirements, the Project Manager can fulfill the Crew Supervisor role and/or serve as a Crew Member.

CREW SUPERVISOR

The Contractor shall designate an employee as the Crew Supervisor. This person shall be on-site during all work activities, at a minimum the Crew Supervisor shall meet the following qualifications:

- Have five (5) years documented full-time field experience in ecosystem restoration
- Hold a current State of Illinois Pesticide Commercial Applicator license with the Rights-of-Ways and Aquatics categories
- Have two (2) or more years of documented experience in the installation of native seed
- If they meet the minimum requirements, the Crew Supervisor can fulfill the Project Manager role and/or serve as a Crew Member.

CREW MEMBERS

All crew members must demonstrate the following:

- Hold a current State of Illinois Pesticide Commercial Operator or Applicator license, Operator licenses must be registered to the Crew Supervisor's Commercial Pesticide Applicator's license.

If the personnel on the job do not have the proper license or experience, the job will be postponed until personnel who carry the proper license are on the job, with no additional payment awarded to the Contractor.

All staff provided by the Contractor to complete this work shall be familiar with local native plants and target species, they shall demonstrate the ability to identify the species to be removed and the species to be left undisturbed. Contractor's staff shall be able to identify such species and have experience with selective species removal techniques. All staff applying herbicide under the Contractor's supervision must be knowledgeable of native flora in Illinois and be able to recognize and avoid spray application to native species. Contractor's staff shall be able to demonstrate their knowledge in the field.

PROSECUTION OF WORK

Prior to beginning work, Contractor shall submit a proposed work schedule to the Engineer outlining when the materials required as part of the Special Provision are needed and when the required tasks will be completed.

This contract is to be completed as directed by the Engineer. The Engineer must be present during all work. Any work completed without the Engineer present will not be measured for payment. The Contractor shall notify the Engineer a minimum of twenty-four (24) hours prior to beginning any work.

In addition to the Engineer, the following materials and/or work shall be approved by the Roadside Management Specialist:

- Herbicide products
- Native seed products
- Soil amendment products
- Calibration of equipment
- Initial herbicide mixing and any additional herbicide mixing being completed by a different staff member
- Assessment of herbicide application coverage
- Assessment of seedbed preparation
- Assessment of completed seeding
- Assessment of performance criteria

Unless otherwise agreed to by the Engineer, all work for this contract is to be completed Monday-Friday between the hours of 7:00 AM-4:30 PM, work will not be allowed during State of Illinois observed holidays.

WILDFLOWER SEEDING (SPECIAL)

DESCRIPTION

This work shall consist of spray applications of non-selective herbicide to eliminate existing vegetation, preparation of the seed bed, integration of soil amendments, and the installation of native seed. Priorities include the preparation of planting areas for good seed-to-soil contact and installing an even coverage of high-quality native seed. The intent is to develop a dense stand of native seedlings with minimal weed content prior to final acceptance.

Wildflower Seeding (Special) pricing shall include all labor, material, equipment, and transport necessary for, and incidental to, site preparation and seed installation.

MATERIALS

INOCULANTS

Uniform in composition, dry, and free-flowing. Inoculants becoming caked or otherwise damaged making it not suitable for use will not be accepted.

Contractor shall provide Certifications and/or analysis data for specified Inoculant products prior to installation.

Inoculant Products:

Mycorrhizal Inoculants – Granular form of endomycorrhizal inoculum that are prepared for direct soil application. Product shall contain a minimum of 33.1 propagules/gram of live *Glomus intraradices* spores, 33.1 propagules/gram of live *Glomus mosseae*, 33.1 propagules/gram of live *Glomus aggregatum*, and 33.1 propagules/gram of live *Glomus etunicatum*, such as MycoApply Endo or equal approved by the Roadside Management Specialist. Spores shall be pelletized in a clay carrier; certifications of live spore analysis shall be supplied to the district prior to seed installation.

Rhizobial Inoculants – Solid, peat-based inoculants (granular or powder form) that are prepared for seed or direct soil application. Each legume species requires a specific species and strain of rhizobia inoculum, Contractor is responsible for working with their seed supplier to ensure the correct strains of inoculum for specified legume species are provided. Certifications of live spore analysis shall be supplied to the district prior to seed installation.

NATIVE SEED

The Contractor must have all native seed delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation's Landscape Yard, located at 1203 N 30th Road, Ottawa, IL 61350, along with the summary of seed testing data five (5) working days prior to the start of the contract. Call Andy Stahr, Roadside Management Specialist @ 815-587-2043-, Monday-Friday (7:00am – 3:30pm) to schedule native seed drop-off.

Native seed shall be supplied by a company with a minimum of five (5) years documented experience specializing in the lawful harvest, processing, storage, and shipping of native species.

Seed supplier's facility shall have the capacity to maintain optimal conditions for seed viability and freshness, including but not limited to the ability to control temperature and humidity in each work area, from receiving through seed cleaning, processing, stock shelves, and long-term storage. The district may require inspection of seed supplier's facility prior to shipping of materials.

Native seed shall meet all applicable requirements of Section 1081 of the Standard Specifications. Where conflicts occur between the Standard Specification and the Special Provision, the Special Provision shall prevail.

The names of species required under this Contract conform to those used in the "Flora of the Chicago Region", (Willhelm & Rericha, 2017). Names of varieties not included therein conform generally with names accepted in the nursery trade. All seeds shall be of straight species, no horticultural varieties shall be acceptable.

All seeds shall comply with the Federal Seed Act.

For each seed mix, the following two seed types are specified:

- **Seed Type 1**
The Contractor shall guarantee that all Type 1 seed originates from no more than 600 miles from the center-point of District 3 (Kinsman, IL).

- Seed Type 2

The Contractor shall guarantee that all Type 2 seed originate from a county no more than 200 miles from the center-point of District 3 (Kinsman, IL). These areas include eastern Iowa, southern Wisconsin, northern Illinois, western Indiana, southwest Michigan, and northeast Missouri. The district's preference is for the Contractor to utilize seed with an origin as close to the project site as possible, however acceptable Type 2 seed can originate from any of the following identified Counties (See Exhibit 1):

Illinois – Adams, Alexander, Bond, Boone, Brown, Bureau, Calhoun, Carroll, Cass, Champaign, Christian, Clark, Clay, Clinton, Coles, Cook, Crawford, Cumberland, DeKalb, DeWitt, Douglas, DuPage, Edgar, Edwards, Effingham, Fayette, Ford, Franklin, Fulton, Gallatin, Greene, Grundy, Hamilton, Hancock, Hardin, Henderson, Henry, Iroquois, Jackson, Jasper, Jefferson, Jersey, Jo Daviess, Kane, Kankakee, Kendall, Knox, Lake, LaSalle, Lawrence, Lee, Livingston, Logan, Macon, Macoupin, Madison, Marion, Marshall, Mason, McDonough, McHenry, McLean, Menard, Mercer, Montgomery, Morgan, Moultrie, Ogle, Peoria, Piatt, Pike, Putnam, Richland, Rock Island, Sangamon, Schuyler, Scott, Shelby, St. Clair, Stark, Stephenson, Tazewell, Union, Vermilion, Wabash, Warren, Washington, Wayne, Whiteside, Will, Winnebago, and Woodford

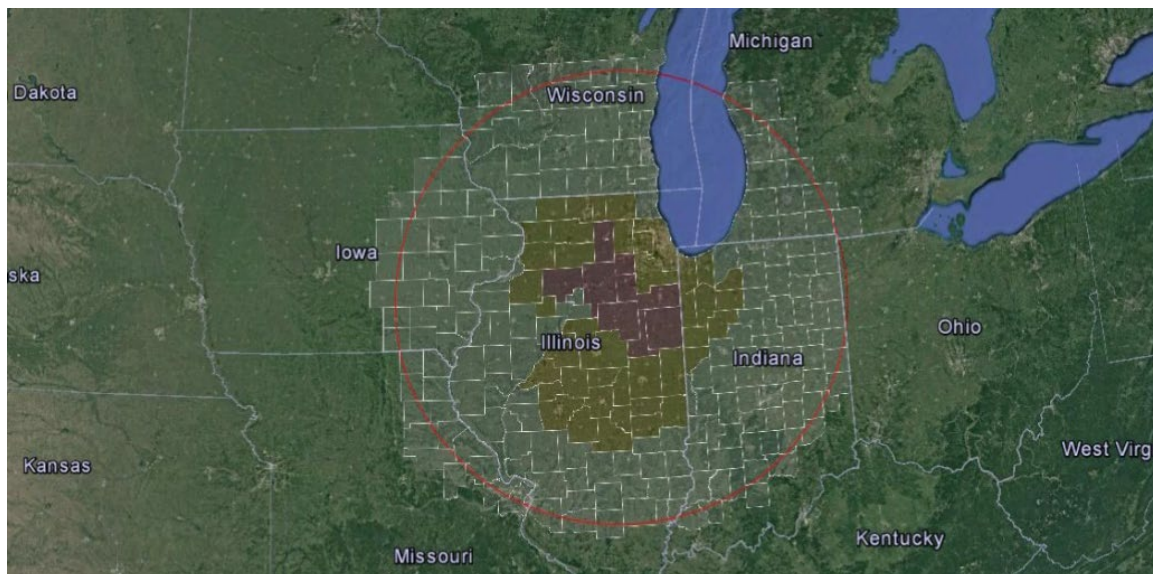
Indiana – Adams, Allen, Bartholomew, Benton, Blackford, Boone, Brown, Carroll, Cass, Clay, Clinton, Daviess, Decatur, DeKalb, Delaware, Elkhart, Fayette, Fountain, Fulton, Gibson, Grant, Greene, Hamilton, Hancock, Hendricks, Henry, Howard, Huntington, Jackson, Jasper, Jay, Johnson, Knox, Kosciusko, LaGrange, Lake, LaPorte, Lawrence, Madison, Marion, Marshall, Martin, Miami, Monroe, Montgomery, Morgan, Newton, Noble, Orange, Owen, Parke, Pike, Porter, Pulaski, Putnam, Randolph, Rush, St. Joseph, Starke, Shelby, Steuben, Sullivan, Tippecanoe, Tipton, Vermillion, Vigo, Wabash, Warren, Wayne, Wells, White, and Whitley

Iowa – Allamakee, Benton, Black Hawk, Buchanan, Cedar, Clay, Clinton, Davis, Delaware, Des Moines, Dubuque, Fayette, Henry, Iowa, Jackson, Jefferson, Johnson, Jones, Keokuk, Lee, Linn, Louisa, Mahaska, Muscatine, Poweshiek, Scott, Tama, Van Buren, Wapello, and Washington

Michigan – Allegan, Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, Kent, Keweenaw, Muskegon, Newaygo, Oceana, Ottawa, St. Joseph, and Van Buren

Missouri – Audrain, Clark, Knox, Lewis, Lincoln, Marion, Monroe, Montgomery, Pike, Ralls, St. Charles, St. Louis, Scotland, and Shelby

Wisconsin – Adams, Calumet, Columbia, Crawford, Dane, Dodge, Fond Du Lac, Grant, Green Lake, Iowa, Jackson, Jefferson, Juneau, Kenosha, LaFayette, Manitowoc, Marinette, Marquette, Milwaukee, Monroe, Ozaukee, Racine, Richland, Rock, Sauk, Sheboygan, Vernon, Walworth, Washington, Waukesha, Waushara, and Winnebago



All native seed shall be provided on a pure live seed (PLS) basis. Products shall contain documentation of PLS testing and, if required, adjustment of the seed weights to provide 100% PLS standards. If rounding is required during PLS adjustment calculations, the adjustment shall always be rounded up. PLS adjustment must be based on seed test results dated no more than 12 months prior to the stated delivery date. Minimum PLS percentage for any species shall be 70%.

Seed containing noxious weeds will not be accepted. Seed containing weed seeds in excess of 0.5% will not be accepted.

All “bearded” or “fluffy” species (such as *Anemone*, *Asclepias*, *Solidago*, *Symphotrichum*, etc.) shall be provided as de-fluffed seed.

All “hulled” species (such as *Dalea*, *Desmodium*, *Lespedeza*, etc.) shall be provided as de-hulled seed.

All seeds shall be shipped in sealed packaging as individual species, seed that has been mixed prior to delivery to the district will not be accepted. Seed packaging shall be transparent (i.e., clear, re-sealable plastic bags) so that the seed is clearly visible for easy inspection of quality. If the quantity of seed ordered will not fit in two (2) large clear re-sealable plastic bags the use of opaque woven polypropylene bags will be permitted.

Each package containing seed shall be legibly tagged as to Vendor name & address, species scientific name, species common name, lot number, PLS value (%), specified quantity, and PLS adjusted quantity. Information provided on seed packaging shall correspond to the approved seed test certificates. Seed not grown by the Vendor must be clearly indicated and accompanied by the name and address of the company which grew the seed.

The Native Seed Mixtures for this project shall be as follows:

Native Grass Seed Mix for Dry-Mesic Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	<i>Andropogon gerardii</i>	Big Bluestem	32.00	13.18%	1	
CXBICK	<i>Carex bicknellii</i>	Copper-shouldered Oval Sedge	8.00	5.60%	2	
CXBREV	<i>Carex brevior</i>	Plains Oval Sedge	4.00	4.78%	2	
CXMOLE	<i>Carex molesta</i>	Field Oval Sedge	8.00	8.24%	2	
ELYSAN	<i>Elymus canadensis</i>	Canada Wild Rye	16.00	3.43%	1	
PANVIR	<i>Panicum virgatum</i>	Switch Grass	6.00	3.46%	1	
SCHSCO	<i>Schizachyrium scoparium</i>	Little Bluestem	96.00	59.33%	1	
SORNUT	<i>Sorghastrum nutans</i>	Indian Grass	4.00	1.98%	1	
TOTAL PLS OUNCES/ACRE:			174.00			

Prairie Seed Mix for Mesic Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	<i>Andropogon gerardii</i>	Big Bluestem	4.00	0.85%	1	
CALCAN	<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.25	1.48%	2	X
CXBICK	<i>Carex bicknellii</i>	Copper-shouldered Oval Sedge	4.00	1.44%	2	
CXBREV	<i>Carex brevior</i>	Plains Oval Sedge	0.25	0.15%	2	
CXCRIS	<i>Carex cristatella</i>	Crested Oval Sedge	0.50	0.61%	2	
CXGRAV	<i>Carex gravida</i>	Long-awned Bracted Sedge	0.25	0.06%	2	
CXMEAD	<i>Carex meadii</i>	Mead's Stiff Sedge	1.00	0.17%	2	
CXMOLE	<i>Carex molesta</i>	Field Oval Sedge	4.00	2.12%	2	
CXVULP	<i>Carex vulpinoidea</i>	Brown Fox Sedge	2.00	4.23%	2	X
ELYSAN	<i>Elymus canadensis</i>	Canada Wild Rye	6.00	0.66%	1	
ELYVIR	<i>Elymus virginicus</i>	Virginia Wild Rye	2.00	0.18%	1	
HESSPA	<i>Hesperostipa spartea</i>	Porcupine Grass	1.00	0.01%	2	
JUNDUD	<i>Juncus dudleyi</i>	Dudley's Rush	0.125	8.46%	2	X

FAI Route 55 (I-55)
Section 2026-1 Pollinator Pres & Rest
Livingston County
Contract No. 66T32

JUNTOR	<i>Juncus torreyi</i>	Torrey's Rush	0.125	4.23%	2	X
PANVIR	<i>Panicum virgatum</i>	Switch Grass	0.25	0.07%	1	
SCHSCO	<i>Schizachyrium scoparium</i>	Little Bluestem	48.00	15.24%	1	
SORNUT	<i>Sorghastrum nutans</i>	Indian Grass	0.50	0.13%	1	
SPAPEC	<i>Spartina pectinata</i>	Cord Grass	8.00	1.12%	2	
SPOHET	<i>Sporobolus heterolepis</i>	Prairie Dropseed	3.00	1.02%	2	
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX by Seed Count	SEED TYPE	SURFACE SOWN
ALLCAN	<i>Allium canadense</i>	Wild Garlic	0.50	0.01%	2	
AMOCAN	<i>Amorpha canescens</i>	Lead Plant	1.00	0.34%	2	
ARNPLA	<i>Arnoglossum plantagineum</i>	Prairie Indian Plantain	0.25	0.02%	2	
ANECYL	<i>Anemone cylindrica</i>	Thimbleweed	1.50	0.83%	2	X
ASCSYR	<i>Asclepias syriaca</i>	Common Milkweed	4.00	0.34%	2	
ASCVER	<i>Asclepias verticillata</i>	Whorled Milkweed	1.00	0.23%	2	
CHAFAS	<i>Chamaecrista fasciculata</i>	Partridge Pea	16.00	0.91%	1	
COMUMB	<i>Comandra umbellata</i>	False Toadflax	1.00	0.02%	2	
CORPAL	<i>Coreopsis palmata</i>	Prairie Coreopsis	2.00	0.42%	2	
CORTRI	<i>Coreopsis tripteris</i>	Tall Coreopsis	3.00	0.89%	2	
DALCAN	<i>Dalea candida</i>	White Prairie Clover	1.00	0.40%	2	
DALPUR	<i>Dalea purpurea</i>	Purple Prairie Clover	2.00	0.76%	2	
DESCAA	<i>Desmodium canadense</i>	Showy Tick Trefoil	1.00	0.12%	2	
DESILE	<i>Desmodium illinoense</i>	Illinois Tick Trefoil	0.25	0.02%	2	
DRYARG	<i>Dryocallis arguta</i>	Prairie Cinquefoil	0.125	0.61%	2	X
ECHPAL	<i>Echinacea pallida</i>	Pale Purple Coneflower	8.00	0.88%	2	
ERYYUC	<i>Eryngium yuccifolium</i>	Rattlesnake Master	6.00	0.95%	2	
EUPCOR	<i>Euphorbia corollata</i>	Flowering Spurge	0.50	0.08%	2	X
EUTGRA	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	0.25	1.85%	1	X
HELGRO	<i>Helianthus grosseserratus</i>	Saw-tooth Sunflower	0.50	0.16%	2	
HELHEL	<i>Heliopsis helianthoides</i>	False Sunflower	6.00	0.80%	2	
LESCAP	<i>Lespedeza capitata</i>	Round-headed Bush Clover	1.00	0.17%	2	
LIAPYC	<i>Liatris pycnostachya</i>	Prairie Blazing Star	4.00	0.93%	2	
LOBSPI	<i>Lobelia spicata</i>	Pale Spiked Lobelia	0.125	2.38%	2	X
LYTALA	<i>Lythrum alatum</i>	Winged Loosestrife	0.125	7.94%	2	X

MAISTE	<i>Maianthemum stellatum</i>	Starry Solomon's Plume	1.00	0.01%	2	
MONFIS	<i>Monarda fistulosa</i>	Wild Bergamot	2.50	3.70%	2	
OLIRIG	<i>Oligoneuron rigidum</i>	Stiff Goldenrod	1.00	0.87%	2	
PARINT	<i>Parthenium integrifolium</i>	Wild Quinine	4.00	0.59%	2	
PEDCAN	<i>Pedicularis canadensis</i>	Wood Betony	0.125	0.09%	2	
PENDIG	<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.25	0.69%	2	
PHLGLAI	<i>Phlox glaberrima var. interior</i>	Marsh Phlox	0.50	0.13%	2	
PHYVIR	<i>Physostegia virginiana</i>	Obedient Plant	0.75	0.17%	2	
PYCVIR	<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.25	1.16%	2	X
RATPIN	<i>Ratibida pinnata</i>	Yellow Coneflower	4.00	2.54%	2	
RUDHIR	<i>Rudbeckia hirta</i>	Black-eyed Susan	8.00	15.58%	1	
SILINT	<i>Silphium integrifolium</i>	Rosin Weed	4.00	0.10%	2	
SILLAC	<i>Silphium laciniatum</i>	Compass Plant	2.00	0.03%	2	
SILTER	<i>Silphium terebinthinaceum</i>	Prairie Dock	2.00	0.04%	2	
SOLNEM	<i>Solidago nemoralis</i>	Old Field Goldenrod	0.125	0.79%	2	X
SYMERI	<i>Symphotrichum ericoides</i>	Heath Aster	0.25	1.06%	2	X
SYMLAE	<i>Symphotrichum laeve</i>	Smooth Blue Aster	1.00	1.16%	2	
SYMNOV	<i>Symphotrichum novae-angliae</i>	New England Aster	2.00	2.79%	2	
TRAOHI	<i>Tradescantia ohiensis</i>	Ohio Spiderwort	4.00	0.68%	2	
VERVIR	<i>Veronicastrum virginicum</i>	Culver's Root	0.125	2.12%	2	X
ZIZAUR	<i>Zizia aurea</i>	Golden Alexanders	6.00	1.40%	2	X
TOTAL PLS OUNCES/ACRE:			190.25			

Sedge Meadow Seed Mix for Mesic-Wet Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	<i>Andropogon gerardii</i>	Big Bluestem	2.00	0.25%	1	
CALCAN	<i>Calamagrostis canadensis</i>	Blue Joint Grass	1.50	5.28%	2	X
CXBICK	<i>Carex bicknellii</i>	Copper-shouldered Oval Sedge	2.00	0.43%	2	
CXCRIS	<i>Carex cristatella</i>	Crested Oval Sedge	1.00	0.73%	2	
CXHAYD	<i>Carex haydenii</i>	Hayden's Sedge	0.50	0.24%	2	
CXLACU	<i>Carex lacustris</i>	Common Lake Sedge	1.00	0.09%	2	
CXMEAD	<i>Carex meadii</i>	Mead's Stiff Sedge	1.00	0.10%	2	

FAI Route 55 (I-55)
Section 2026-1 Pollinator Pres & Rest
Livingston County
Contract No. 66T32

CXMOLE	<i>Carex molesta</i>	Field Oval Sedge	4.00	1.26%	2	
CXPELL	<i>Carex pellita</i>	Prairie Woolly Sedge	1.00	0.19%	2	
CXSCOP	<i>Carex scoparia</i>	Lance-fruited Oval Sedge	4.00	4.23%	2	
CXSTRI	<i>Carex stricta</i>	Common Tussock Sedge	1.00	0.67%	2	
CXTENE	<i>Carex tenera</i>	Narrow-leaved Oval Sedge	0.50	0.13%	2	
CXTRIB	<i>Carex tribuloides</i>	Awl-fruited Oval Sedge	1.50	2.26%	2	X
CXVULP	<i>Carex vulpinoidea</i>	Brown Fox Sedge	6.00	7.54%	2	X
ELYCAN	<i>Elymus canadensis</i>	Canada Wild Rye	2.00	0.13%	2	
ELYVIR	<i>Elymus virginicus</i>	Virginia Wild Rye	4.00	0.21%	1	
JUNDUD	<i>Juncus dudleyi</i>	Dudley's Rush	0.25	10.06%	2	X
JUNTOR	<i>Juncus torreyi</i>	Torrey's Rush	0.25	5.03%	2	X
PANVIR	<i>Panicum virgatum</i>	Switch Grass	0.25	0.04%	1	
SCHSCO	<i>Schizachyrium scoparium</i>	Little Bluestem	24.00	4.53%	1	
SCIATR	<i>Scirpus atrovirens</i>	Dark-green Bulrush	0.50	2.89%	2	X
SCIPEN	<i>Scirpus pendulus</i>	Nodding Bulrush	0.25	0.97%	2	X
SORNUT	<i>Sorghastrum nutans</i>	Indian Grass	0.25	0.04%	1	
SPAPEC	<i>Spartina pectinata</i>	Cord Grass	24.00	1.99%	2	
SPOHET	<i>Sporobolus heterolepis</i>	Prairie Dropseed	1.00	0.20%	2	

Flowers

CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ARNPLA	<i>Arnoglossum plantagineum</i>	Prairie Indian Plantain	0.25	0.01%	2	
ASCINC	<i>Asclepias incarnata</i>	Swamp Milkweed	12.00	0.72%	2	
ASCSYR	<i>Asclepias syriaca</i>	Common Milkweed	2.00	0.10%	2	
CHAFAS	<i>Chamaecrista fasciculata</i>	Partridge Pea	16.00	0.54%	1	
COMUMB	<i>Comandra umbellata</i>	False Toadflax	0.25	0.00%	1	
CORTRI	<i>Coreopsis tripteris</i>	Tall Coreopsis	6.00	1.06%	2	
DALCAN	<i>Dalea candida</i>	White Prairie Clover	0.50	0.12%	2	
DALPUR	<i>Dalea purpurea</i>	Purple Prairie Clover	1.00	0.23%	2	
DESCAA	<i>Desmodium canadense</i>	Showy Tick Trefoil	1.00	0.07%	2	
DRYARG	<i>Drymocallis arguta</i>	Prairie Cinquefoil	0.25	0.72%	2	X
ERYYUC	<i>Eryngium yuccifolium</i>	Rattlesnake Master	12.00	1.13%	2	
EUPPER	<i>Eupatorium perfoliatum</i>	Boneset	0.50	1.01%	2	X
EUTGRA	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	1.00	4.40%	2	X

FAI Route 55 (I-55)
Section 2026-1 Pollinator Pres & Rest
Livingston County
Contract No. 66T32

EUTMAC	<i>Eutrochium maculatum</i>	Spotted Joe Pye Weed	0.50	0.60%	2	X
HELAUT	<i>Helenium autumnale</i>	Sneezeweed	0.25	0.41%	2	X
HELGRO	<i>Helianthus grosseserratus</i>	Saw-tooth Sunflower	0.50	0.09%	2	
HELHEL	<i>Heliopsis helianthoides</i>	False Sunflower	4.00	0.32%	2	
IRIVIS	<i>Iris virginica</i> var. <i>shrevei</i>	Southern Blue Flag	1.00	0.01%	2	
LIAPYC	<i>Liatris pycnostachya</i>	Prairie Blazing Star	4.00	0.55%	2	
LOBSIP	<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.25	1.57%	2	X
LYCAME	<i>Lycopus americanus</i>	Common Water Horehound	0.25	0.49%	2	X
LYTALA	<i>Lythrum alatum</i>	Winged Loosestrife	0.125	4.72%	2	X
MAISTE	<i>Maianthemum stellatum</i>	Starry Solomon's Plume	1.00	0.01%	2	
MENCAN	<i>Mentha canadensis</i>	Wild Mint	0.125	0.47%	2	X
MIMRIN	<i>Mimulus ringens</i>	Monkey Flower	0.125	3.62%	2	X
MONFIS	<i>Monarda fistulosa</i>	Wild Bergamot	2.00	1.76%	2	
OLIRID	<i>Oligoneuron riddellii</i>	Riddell's Goldenrod	1.00	1.17%	2	X
OLIRIG	<i>Oligoneuron rigidum</i>	Stiff Goldenrod	0.50	0.26%	2	
PARINT	<i>Parthenium integrifolium</i>	Wild Quinine	1.50	0.13%	1	
PENDIG	<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.75	1.23%	2	
PENSED	<i>Penthorum sedoides</i>	Ditch Stonecrop	0.125	2.04%	2	X
PHGLAI	<i>Phlox glaberrima</i> var. <i>interior</i>	Marsh Phlox	2.00	0.30%	2	
PHYVIR	<i>Physostegia virginiana</i>	Obedient Plant	6.00	0.83%	2	
PYCVIR	<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.50	1.38%	2	X
RATPIN	<i>Ratibida pinnata</i>	Yellow Coneflower	2.00	0.75%	2	
RUDHIR	<i>Rudbeckia hirta</i>	Black-eyed Susan	8.00	9.25%	2	
SILINT	<i>Silphium integrifolium</i>	Rosin Weed	2.00	0.03%	2	
SILLAC	<i>Silphium laciniatum</i>	Compass Plant	1.00	0.01%	2	
SILPER	<i>Silphium perfoliatum</i>	Cup Plant	0.25	0.00%	2	
SILTER	<i>Silphium terebinthinaceum</i>	Prairie Dock	1.50	0.02%	2	
SOLNEM	<i>Solidago nemoralis</i>	Old Field Goldenrod	0.25	0.94%	2	X
SYMERI	<i>Symphotrichum ericoides</i>	Heath Aster	0.25	0.63%	2	X
SYMNOV	<i>Symphotrichum novae-angliae</i>	New England Aster	2.50	2.07%		
THADAS	<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	0.50	0.07%		
TRAOHI	<i>Tradescantia ohiensis</i>	Ohio Spiderwort	4.00	0.40%		
VERHAS	<i>Verbena hastata</i>	Blue Vervain	0.75	0.88%		X
VERFAS	<i>Vernonia fasciculata</i>	Common Ironweed	1.00	0.30%		

VERVIR	<i>Veronicastrum virginicum</i>	Culver's Root	0.25	2.51%		X
ZIZAUR	<i>Zizia aurea</i>	Golden Alexanders	4.00	0.55%		X
TOTAL PLS OUNCES/ACRE:			191.25			

Supplemental Wetland Seed Mix for Wet Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
CXHYST	<i>Carex hystericina</i>	Porcupine Sedge	12.00	12.95%	1	
CXTRIB	<i>Carex tribuloides</i>	Awl-fruited Oval Sedge	4.00	17.27%	1	X
ELEPAL	<i>Eleocharis palustris</i>	Great Spike Rush	1.00	1.84%	1	X
LEEORY	<i>Leersia oryzoides</i>	Rice Cut Grass	6.00	7.34%	1	
SCHTAB	<i>Schoenoplectus tabernaemontani</i>	Great Bulrush	1.00	1.12%	1	X
SCIATR	<i>Scirpus atrovirens</i>	Dark-green Bulrush	2.00	33.11%	1	X
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ALISUB	<i>Alisma subcordatum</i>	Mud Plantain	0.50	1.08%	2	
ASCINC	<i>Asclepias incarnata</i>	Swamp Milkweed	6.00	1.04%	2	
EUPPER	<i>Eupatorium perfoliatum</i>	Boneset	0.25	1.44%	2	X
EUTMAC	<i>Eutrochium maculatum</i>	Spotted Joe Pye Weed	0.25	0.85%	2	X
HIBLAE	<i>Hibiscus laevis</i>	Halberd-leaved Rose Mallow	1.00	0.10%	2	
IRIVIS	<i>Iris virginica var. shrevei</i>	Southern Blue Flag	6.00	0.22%	2	
LOBSIP	<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.125	2.25%	2	X
MIMRIN	<i>Mimulus ringens</i>	Monkey Flower	0.125	10.35%	2	X
PENSED	<i>Penthorum sedoides</i>	Ditch Stonecrop	0.125	5.85%	2	X
SAGLAT	<i>Sagittaria latifolia</i>	Common Arrowhead	0.50	1.10%	2	
VERFAS	<i>Vernonia fasciculata</i>	Common Ironweed	0.50	0.43%	2	
VERHAS	<i>Verbena hastata</i>	Blue Vervain	0.50	1.67%	2	X
TOTAL PLS OUNCES/ACRE:			41.88			

Supplemental Woodland Edge Seed Mix for Mesic Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
CXNORM	<i>Carex normalis</i>	Spreading Oval Sedge	6.00	10.81%	1	
CXTENE	<i>Carex tenera</i>	Narrow-leaved Oval Sedge	2.00	2.88%	1	
ELYHYS	<i>Elymus hystrix</i>	Bottlebrush Grass	36.00	19.71%	1	
ELYVIL	<i>Elymus villosus</i>	Silky Wild Rye	12.00	4.75%	1	
GLYSTR	<i>Glyceria striata</i>	Fowl Manna Grass	0.25	1.62%	1	X
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANEVIR	<i>Anemone virginiana</i>	Tall Thimbleweed	1.00	2.02%	2	X
BLEHIR	<i>Blephilia hirsuta</i>	Hairy Wood Mint	0.25	4.32%	2	X
CAMAME	<i>Campanulastrum americanum</i>	American Bellflower	2.00	24.49%	2	X
GERMAC	<i>Geranium maculatum</i>	Wild Geranium	8.00	2.88%	2	
HELSTR	<i>Helianthus strumosus</i>	Pale-leaved Sunflower	2.00	0.79%	2	
RUDLAC	<i>Rudbeckia laciniata</i>	Wild Golden Glow	1.00	1.01%	2	
RUDTRI	<i>Rudbeckia triloba</i>	Brown-eyed Susan	2.50	6.12%	2	
SYMDRU	<i>Symphotrichum drummondii</i>	Drummond's Aster	3.00	17.29%	2	
VERALT	<i>Verbesina alternifolia</i>	Wingstem	2.00	1.30%	2	
TOTAL PLS OUNCES/ACRE:			78.00			

HERBICIDE

The Contractor must have all chemicals inspected in their original unopened packaging by the IDOT District 3 Roadside Vegetation Management Specialist prior to beginning work. If any of the chemicals supplied are deemed non-compliant, the Contractor shall supply additional chemicals for inspection at no additional cost until all chemicals to be utilized on this project are deemed acceptable by the Engineer.

The Contractor shall provide the Engineer with copies of herbicide labels and MSDS sheets for the chemicals being used a minimum of five (5) business days prior to the required chemical inspection.

Weeds shall be sprayed with the products described below:

SPOT SPRAY MIXTURE

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro 40.6% (Milestone or equal approved by the Engineer) shall be applied at a rate of thirty-two hundredths (0.32) ounces per gallon of spray mixture (0.25% v/v).

Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt 40.9% (Transline or equal approved by the Engineer) shall be applied at a rate of sixty-four hundredths (0.64) ounces per gallon of spray mixture (0.50% v/v).

Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100% (Liberate or equal approved by the Engineer) shall be applied at a rate of thirty-two hundredths (0.32) of a liquid ounce of product per gallon of spray mixture (0.25% v/v).

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a minimum rate of one (1) ounce per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied as needed in a spot-spray application targeting hard-to-control broadleaf weed species, such as teasel or Canada thistle, and/or species known to be resistant to Glyphosate products. Due to the potential residual properties of these herbicide products, application to site soils shall be avoided through a highly targeted approach by the Contractor.

NON-SELECTIVE BROADCAST SPRAY MIXTURE

Glyphosate, N-(Phosphonomethyl)glycine, in the form of its isopropylamine salt 53.8% (Roundup Custom or equal approved by the Engineer) shall be applied at a rate of ninety-six (96) ounces per acre (2.5% v/v).

Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100% (Liberate or equal approved by the Engineer) shall be applied at a rate of thirty-two hundredths (0.32) of a liquid ounce of product per gallon of spray mixture (0.25% v/v).

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be applied at a minimum rate of one half (0.50) of a liquid ounce of product per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive ninety-six (96) ounces of Roundup Custom or equal, non-ionic surfactant at a minimum of 0.25% v/v, and spray pattern indicator in ample quantity to be visible after application. This mixture shall be continuously agitated during spraying operations.

PISTOL SPRAY MIXTURE

Glyphosate, N-(Phosphonomethyl)glycine, in the form of its isopropylamine salt 53.8% (Roundup Custom or equal approved by the Engineer) shall be applied at a rate of one-hundred ninety-two (192) ounces per acre (5.0% v/v).

Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100% (Liberate or equal approved by the Engineer) shall be applied at a rate of sixty-four hundredths (0.64) of a liquid ounce of product per gallon of spray mixture (0.50% v/v).

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be applied at a minimum rate of one half (0.50) of a liquid ounce of product per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied as needed in a spot-spray application targeting common reed and cattails growing in ditches in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive one-hundred ninety-two (192) ounces of Roundup Custom or equal, non-ionic surfactant at a minimum of 0.50% v/v, and spray pattern indicator in ample quantity to be visible after application. This mixture shall be continuously agitated during spraying operations. At the Engineer's discretion, gallons per acre may be adjusted based on Contractor's equipment if chemical is also adjusted to meet the v/v percentages specified for each product.

All products are stated in liquid measure.

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to mixing of herbicides.

The Contractor shall download the Material Safety Data Sheets for each herbicide, become familiar with the safety hazards, follow the handling & safety instructions, and provide this information to their field personnel.

EXECUTION

GENERAL CONDITIONS

When possible, Contractor shall utilize equipment having low unit pressure ground contact within planting areas. Unless otherwise approved by the Engineer, the use of heavy equipment shall not be allowed in areas designated as "remnant" on the Plans. Contractor shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Off-road vehicles shall be equipped with off-road or high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with appropriate tires for site conditions, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The tank on all spray equipment shall be equipped with tight-fitting lids which will prevent the contents from splashing or spilling out. Spray mixture tanks shall have sight gauges calibrated in English units for easy measurement, and mechanical or by-pass agitation systems to ensure thorough and continuous mixing of the chemicals. Pumps shall be capable of delivering 30 GPM at or around 40 PSI, and to keep the spray pattern full and steady without pulsation. Spray nozzles shall be selected which are designed to reduce potential herbicide drift.

The Contractor will be required to have all equipment cleaned and in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be completed by the Engineer prior to starting any work. If equipment is not clean or working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of their equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project records books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107 of the Standard Specifications. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record.

Chemicals used will have the lowest environmental impact for the task at hand. Organic or cultural practices will be used whenever practical. Within designated herbicide spray areas that receive foot traffic the Contractor will post marker signs immediately prior to application of herbicide products at the usual point or points of entry. The marker signs shall consist of a four inch by five-inch (4" x 5") sign, vertical or horizontal, attached to the upper portion of a dowel or other supporting device with the bottom of the marker extending no less than twelve inches (12") above the ground. Signs must be visible, if obstructed by taller vegetation a larger supporting device shall be used. The marker sign shall have a white background, and the lettering shall be in a contrasting color. The Marker sign shall state on one side, in letters of not less than three-eighths of an inch (3/8"), the following: "HERBICIDE APPLICATION – STAY OUT UNTIL DRY – FOR MORE INFORMATION CONTACT: (here shall be inserted the name and business telephone number of the applicator for hire)."

PLANTING TIME FRAME

Native seeds shall be planted during the following timeframe, the site preparation timeline detailed below shall be constructed based on an appropriate seeding timeframe:

Fall Planting: September 15th – November 30th

Extensions for planting timeframe are not expected to be granted for this project, to attain appropriate seed stratification the Department desires a fall installation. Minor extensions may be possible due to extenuating circumstances at the Engineers discretion and based on time of year, weather, and site conditions.

LAYOUT

The Department shall be responsible for the layout of planting areas.

SITE PREPARATION

Eleven (11) weeks prior to the targeted seeding date, the Department will mow all proposed wildflower seeding areas to a height of four to six inches (4-6”).

Seven (7) weeks prior to the targeted seeding date, conduct the initial Spot Spray application, including limited spot applications of the Milestone or equal + Transline or equal herbicide mixture utilized on existing hard-to-control and/or Roundup resistant weed species within the planting areas identified for non-selective herbicide application and within existing native grass stands. Species targeted for spot applications are mainly teasel, thistle, wild parsnip, and others as identified by the Engineer.

Seven (7) weeks prior to the targeted seeding date, conduct the initial Pistol Spray application. Cattails or Phragmites growing within planting areas identified for non-selective herbicide application shall be treated with an application of the Roundup Custom or equal herbicide mixture resulting in a complete kill of all existing vegetation. Spraying of herbicide with a pistol-style hose and reel sprayer and/or backpack sprayers is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Seven (7) weeks prior to the targeted seeding date, conduct initial Non-Selective Broadcast Spray application. Planting areas identified for non-selective herbicide application shall be treated with an application of the Roundup Custom or equal herbicide mixture resulting in a complete kill of all existing vegetation. Broadcast or “Boom” spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Three (3) weeks prior to the targeted seeding date, conduct a follow-up Pistol Spray application. Cattails or Phragmites growing in the bottom of drainage ditches within planting areas identified for non-selective herbicide application shall be treated with an application of the Roundup Custom or equal herbicide mixture resulting in a complete kill of all existing vegetation. Spraying of herbicide with a pistol-style hose and reel sprayer and/or backpack sprayers is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Three (3) weeks prior to the targeted seeding date, conduct a follow-up Non-Selective Broadcast Spray application. Planting areas identified for non-selective herbicide application shall be treated with a second application of the Roundup Custom or equal herbicide mixture resulting in a complete kill of all existing vegetation. Broadcast or “Boom” spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Prior to seeding, remove dead biomass within planting areas using a landscape rake or other method approved by the Engineer. Where possible, planting areas designated to receive Supplemental Wetland Seed Mix for Wet Soils shall be tilled 2 to 4 inches deep in order to break up the existing salt layer.

Once dead biomass is removed from the planting areas, spread soil amendments products within all planting areas, see special provision for SOIL AMENDMENTS.

Immediately after spreading soil amendments, scarify the soil within planting areas in a manner that will integrate amendments into the top layer of soil and prepare a seedbed that will allow good seed-to-soil contact. Soil scarification may be achieved with a landscape rake, Harley rake, drag chain, etc. Disking or tilling is not acceptable. Seedbed must be approved by the Roadside Management Specialist and Engineer prior to beginning seeding operations.

Based on the Contractor's proposed methods for appropriate seedbed preparation, the Engineer may adjust the above listed timeframe and/or order of events accordingly.

PLANTING

Blend the native seed into mixes appropriate for the seed installation method being used.

Seed mixed for use with a mechanized rangeland dropseeder shall be constructed as two separate blends for each specified seed mixture:

Blend 1A – Seed to be planted using the small seed box shall be mixed with a mycorrhizal and rhizobial inoculant as a carrier. The rate of mycorrhizal inoculant shall be 40 LBS/acre minimum, rhizobial inoculants shall be as per the rates recommended by the seed supplier.

Blend 1B – Seed blended for the large or grass seed box shall be mixed with an appropriate cover crop as a carrier. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal.

Seed mixed for hand or mechanized broadcasting shall be constructed as three separate blends for each specified seed mixture:

Blend 2A – 1/2 of all grass species.

Blend 2B – 1/2 of all grass species + 1/3 of remaining species (sedges, rushes, forbs) with the exception of any species indicated as "Surface Sown" in the Native Seed Mixtures found in the Materials Section of this Special Provision.

Blend 2C – All remaining species.

Seed used for hand seeding or mechanized broadcasting shall be mixed with a mycorrhizal inoculant at 40 LBS/acre minimum, a rhizobial inoculant at rates recommended by the seed supplier, and an appropriate cover crop. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal. The addition of an inert material as a carrier (such as sand, wheat bran, rice hulls, etc.) may be required to enable an even distribution of seed at specified rates.

Primarily, and wherever made possible by site conditions, seed shall be installed using a rangeland type dropseeder designed to plant native grass and forb seed (such as the Greenscape 600 Conservation Seeder or equivalent). Seed shall be installed starting at the planting area edges and in two (2) separate runs where each application of seed shall overlap the previous application by one half (1/2) the weight to insure double coverage of seeded areas (example: seed in a north to south direction @ ten pounds per acre, then overlap by seeding in an east to west direction @ ten pounds per acre, resulting in a total coverage of twenty pounds per acre [twenty pounds per acre is an example only, see the Native Seed Mixtures in the Materials Section of this Special Provision for actual project seeding rates].) Each planting run shall overlap by a minimum of six (6) inches. If any of the seed species require exposure to sunlight for germination and cannot be planted utilizing the small seed box, those species shall be planted separately, after dropseeding, utilizing the broadcasting method.

If site conditions prohibit the use of mechanized dropseeding equipment or for supplemental seed mix installation, hand broadcasting of seed is acceptable. If seed is hand broadcast, it shall be mixed with an equal amount of inert material as a carrier (such as sand, wheat bran, rice hulls, etc.) to enable an even distribution of seed at specified rates. A mechanical broadcast seeder with appropriate agitation may also be utilized, such as the Herd Model 750 or equal. When using this seeding method, seed shall be broadcast in three (3) separate applications:

Broadcast "Blend 2A" of the specified seed mix. Drag the seeding area utilizing a drag rake, drag harrow, drag chain, or similar equipment approved by the Engineer. Work native seed into the soil achieving a final planting depth between 0.25" (1/4") – 0.5" (1/2").

Broadcast "Blend 2B" of the specified seed mix. Lightly drag the seeding area utilizing a drag rake, drag harrow, drag chain, or similar equipment approved by the Engineer. Work the native seed into the soil achieving a final planting depth between 0.0625" (1/16") – 0.25" (1/4").

Broadcast "Blend 2C" of the specified seed mix directly atop prepared seedbed. Do not drag or rake.

Do not sow seed in areas where standing water is present, during adverse weather, or when wind speeds exceed ten (10) miles per hour unless otherwise approved by the Engineer.

Hydroseeding of Native Seed is not acceptable.

Roll planting areas within twelve (12) hours after seed installation, or as soon as site conditions permit. The use of the cultipacker on the dropseeder meets this requirement. Supplemental Wetland Seed Mix or other saturated soil areas are excluded from this requirement.

Install erosion control blanket where required.

RESTRICTIONS

Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

METHOD OF MEASUREMENT

This work will be measured for payment in acres of surface area seeded.

The exact locations of seeding will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

10% of this pay item will be held as retainage until final completion of the entire project. The Engineer will release retainage upon satisfaction of the performance criteria stated in PRAIRIE WEED CONTROL and issuance of final completion.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per acre for WILDFLOWER SEEDING (SPECIAL).

WILDFLOWER INTERSEEDING (SPECIAL)

DESCRIPTION

This work shall consist of non-native brush removal, spray applications of selective herbicide to eliminate existing grass species, preparation of the seed bed, integration of soil amendments, and the installation of native seed. Priorities include the preparation of planting areas for good seed-to-soil contact and installing an even coverage of high-quality native seed. The intent is to develop a dense stand of native seedlings with minimal weed content prior to final acceptance.

Wildflower Interseeding (Special) pricing shall include all labor, material, equipment, and transport necessary for, and incidental to, site preparation and seed installation.

MATERIALS

INOCULANTS

Uniform in composition, dry, and free-flowing. Inoculants becoming caked or otherwise damaged making it not suitable for use will not be accepted.

Contractor shall provide Certifications and/or analysis data for specified Inoculant products prior to installation.

Inoculant Products:

Mycorrhizal Inoculants – Granular form of endomycorrhizal inoculum that are prepared for direct soil application. Product shall contain a minimum of 33.1 propagules/gram of live *Glomus intraradices* spores, 33.1 propagules/gram of live *Glomus mosseae*, 33.1 propagules/gram of live *Glomus aggregatum*, and 33.1 propagules/gram of live *Glomus etunicatum*, such as MycoApply Endo or equal approved by the Roadside Management Specialist. Spores shall be pelletized in a clay carrier; certifications of live spore analysis shall be supplied to the district prior to seed installation.

Rhizobial Inoculants – Solid, peat-based inoculants (granular or powder form) that are prepared for seed or direct soil application. Each legume species requires a specific species and strain of rhizobia inoculum, Contractor is responsible for working with their seed supplier to ensure the correct strains of inoculum for specified legume species are provided. Certifications of live spore analysis shall be supplied to the district prior to seed installation.

NATIVE SEED

The Contractor must have all native seed delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation's Landscape Yard, located at 1203 N 30th Road, Ottawa, IL 61350, along with the summary of seed testing data five (5) working days prior to the start of the contract. Call Andy Stahr, Roadside Management Specialist @ 815-587-2043-, Monday-Friday (7:00am – 3:30pm) to schedule native seed drop-off.

Native seed shall be supplied by a company with a minimum of five (5) years documented experience specializing in the lawful harvest, processing, storage, and shipping of native species.

Seed supplier's facility shall have the capacity to maintain optimal conditions for seed viability and freshness, including but not limited to the ability to control temperature and humidity in each work area, from receiving through seed cleaning, processing, stock shelves, and long-term storage. The district may require inspection of seed supplier's facility prior to shipping of materials.

Native seed shall meet all applicable requirements of Section 1081 of the Standard Specifications. Where conflicts occur between the Standard Specification and the Special Provision, the Special Provision shall prevail.

The names of species required under this Contract conform to those used in the "Flora of the Chicago Region", (Willhelm & Rericha, 2017). Names of varieties not included therein conform generally with names accepted in the nursery trade. All seeds shall be of straight species, no horticultural varieties shall be acceptable.

All seeds shall comply with the Federal Seed Act.

For each seed mix, the following two seed types are specified:

- Seed Type 1
The Contractor shall guarantee that all Type 1 seed originates from no more than 600 miles from the center-point of District 3 (Kinsman, IL).
- Seed Type 2
The Contractor shall guarantee that all Type 2 seed originate from a county no more than 200 miles from the center-point of District 3 (Kinsman, IL). These areas include eastern Iowa, southern Wisconsin, northern Illinois, western Indiana, southwest Michigan, and northeast Missouri. The district's preference is for the Contractor to utilize seed with an origin as close to the project site as possible, however acceptable Type 2 seed can originate from any of the following identified Counties (See Exhibit 1):

Illinois – Adams, Alexander, Bond, Boone, Brown, Bureau, Calhoun, Carroll, Cass, Champaign, Christian, Clark, Clay, Clinton, Coles, Cook, Crawford, Cumberland, DeKalb, DeWitt, Douglas, DuPage, Edgar, Edwards, Effingham, Fayette, Ford, Franklin, Fulton, Gallatin, Greene, Grundy, Hamilton, Hancock, Hardin, Henderson, Henry, Iroquois, Jackson, Jasper, Jefferson, Jersey, Jo Daviess, Kane, Kankakee, Kendall, Knox, Lake, LaSalle, Lawrence, Lee, Livingston, Logan, Macon, Macoupin, Madison, Marion, Marshall, Mason, McDonough, McHenry, McLean, Menard, Mercer, Montgomery, Morgan, Moultrie, Ogle, Peoria, Piatt, Pike, Putnam, Richland, Rock Island, Sangamon, Schuyler, Scott, Shelby, St. Clair, Stark, Stephenson, Tazewell, Union, Vermillion, Wabash, Warren, Washington, Wayne, Whiteside, Will, Winnebago, and Woodford

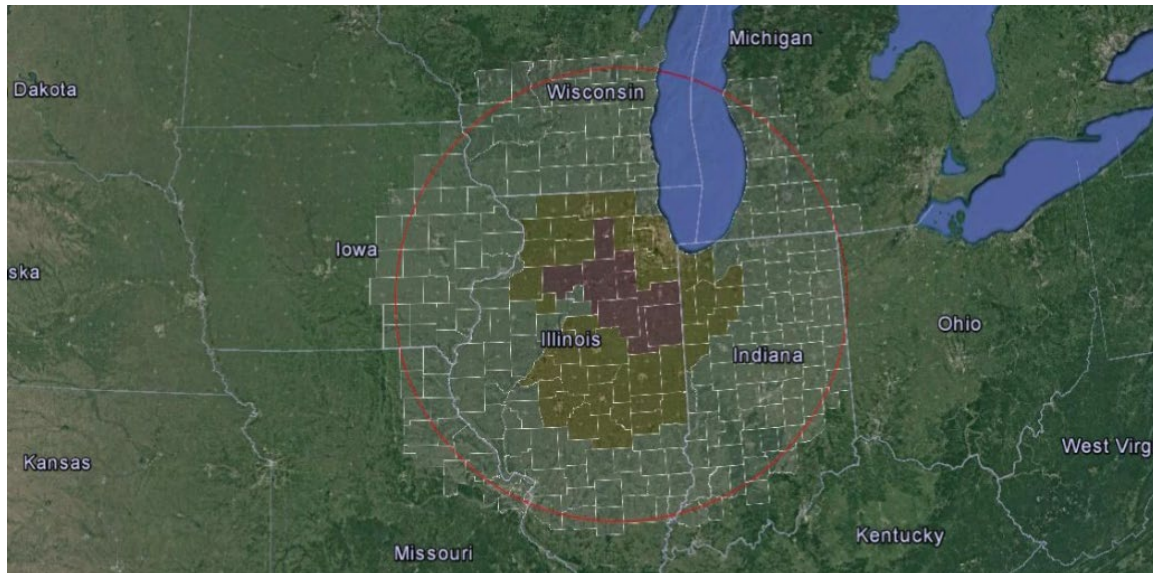
Indiana – Adams, Allen, Bartholomew, Benton, Blackford, Boone, Brown, Carroll, Cass, Clay, Clinton, Daviess, Decatur, DeKalb, Delaware, Elkhart, Fayette, Fountain, Fulton, Gibson, Grant, Greene, Hamilton, Hancock, Hendricks, Henry, Howard, Huntington, Jackson, Jasper, Jay, Johnson, Knox, Kosciusko, LaGrange, Lake, LaPorte, Lawrence, Madison, Marion, Marshall, Martin, Miami, Monroe, Montgomery, Morgan, Newton, Noble, Orange, Owen, Parke, Pike, Porter, Pulaski, Putnam, Randolph, Rush, St. Joseph, Starke, Shelby, Steuben, Sullivan, Tippecanoe, Tipton, Vermillion, Vigo, Wabash, Warren, Wayne, Wells, White, and Whitley

Iowa – Allamakee, Benton, Black Hawk, Buchanan, Cedar, Clay, Clinton, Davis, Delaware, Des Moines, Dubuque, Fayette, Henry, Iowa, Jackson, Jefferson, Johnson, Jones, Keokuk, Lee, Linn, Louisa, Mahaska, Muscatine, Poweshiek, Scott, Tama, Van Buren, Wapello, and Washington

Michigan – Allegan, Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, Kent, Keweenaw, Muskegon, Newaygo, Oceana, Ottawa, St. Joseph, and Van Buren

Missouri – Audrain, Clark, Knox, Lewis, Lincoln, Marion, Monroe, Montgomery, Pike, Ralls, St. Charles, St. Louis, Scotland, and Shelby

Wisconsin – Adams, Calumet, Columbia, Crawford, Dane, Dodge, Fond Du Lac, Grant, Green Lake, Iowa, Jackson, Jefferson, Juneau, Kenosha, LaFayette, Manitowoc, Marinette, Marquette, Milwaukee, Monroe, Ozaukee, Racine, Richland, Rock, Sauk, Sheboygan, Vernon, Walworth, Washington, Waukesha, Waushara, and Winnebago



All native seed shall be provided on a pure live seed (PLS) basis. Products shall contain documentation of PLS testing and, if required, adjustment of the seed weights to provide 100% PLS standards. If rounding is required during PLS adjustment calculations, the adjustment shall always be rounded up. PLS adjustment must be based on seed test results dated no more than 12 months prior to the stated delivery date. Minimum PLS percentage for any species shall be 70%.

Seed containing noxious weeds will not be accepted. Seed containing weed seeds in excess of 0.5% will not be accepted.

All “bearded” or “fluffy” species (such as *Anemone*, *Asclepias*, *Solidago*, *Symphotrichum*, etc.) shall be provided as de-fluffed seed.

All “hulled” species (such as *Dalea*, *Desmodium*, *Lespedeza*, etc.) shall be provided as de-hulled seed.

All seeds shall be shipped in sealed packaging as individual species, seed that has been mixed prior to delivery to the district will not be accepted. Seed packaging shall be transparent (i.e., clear, re-sealable plastic bags) so that the seed is clearly visible for easy inspection of quality. If the quantity of seed ordered will not fit in two (2) large clear re-sealable plastic bags the use of opaque woven polypropylene bags will be permitted.

Each package containing seed shall be legibly tagged as to Vendor name & address, species scientific name, species common name, lot number, PLS value (%), specified quantity, and PLS adjusted quantity. Information provided on seed packaging shall correspond to the approved seed test certificates. Seed not grown by the Vendor must be clearly indicated and accompanied by the name and address of the company which grew the seed.

The Native Seed Mixtures for this line item shall be as follows:

Supplemental Sedge Meadow Seed Mix for Mesic-Wet Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	<i>Andropogon gerardii</i>	Big Bluestem	0.25	0.13%	1	
CALCAN	<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.25	3.63%	2	X
CXCRIS	<i>Carex cristatella</i>	Crested Oval Sedge	0.25	0.75%	2	
CXLACU	<i>Carex lacustris</i>	Common Lake Sedge	0.25	0.09%	2	
CXMEAD	<i>Carex meadii</i>	Mead's Stiff Sedge	0.25	0.10%	2	
CXMOLE	<i>Carex molesta</i>	Field Oval Sedge	0.50	0.65%	2	
CXPELL	<i>Carex pellita</i>	Prairie Woolly Sedge	0.25	0.19%	2	
CXSCOP	<i>Carex scoparia</i>	Lance-fruited Oval Sedge	0.50	2.18%	2	
CXSTRI	<i>Carex stricta</i>	Common Tussock Sedge	0.25	0.69%	2	
CXTENE	<i>Carex tenera</i>	Narrow-leaved Oval Sedge	0.125	0.13%	2	
CXTRIB	<i>Carex tribuloides</i>	Awl-fruited Oval Sedge	0.25	1.56%	2	X
CXVULP	<i>Carex vulpinoidea</i>	Brown Fox Sedge	0.25	1.30%	2	X
ELYCAN	<i>Elymus canadensis</i>	Canada Wild Rye	0.25	0.07%	1	
ELYVIR	<i>Elymus virginicus</i>	Virginia Wild Rye	0.50	0.11%	1	
JUNDUD	<i>Juncus dudleyi</i>	Dudley's Rush	0.125	20.76%	2	X
JUNTOR	<i>Juncus torreyi</i>	Torrey's Rush	0.125	10.38%	2	X
SCHSCO	<i>Schizachyrium scoparium</i>	Little Bluestem	3.00	2.34%	1	
SCIATR	<i>Scirpus atrovirens</i>	Dark-green Bulrush	0.125	2.98%	2	X
SCIPEN	<i>Scirpus pendulus</i>	Nodding Bulrush	0.125	2.01%	2	X
SPAPEC	<i>Spartina pectinata</i>	Cord Grass	6.00	2.06%	2	
SPOHET	<i>Sporobolus heterolepis</i>	Prairie Dropseed	0.25	0.21%	2	
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ARNPLA	<i>Arnoglossum plantagineum</i>	Prairie Indian Plantain	0.125	0.03%	2	
ASCINC	<i>Asclepias incarnata</i>	Swamp Milkweed	3.00	0.75%	2	
CHAFAS	<i>Chamaecrista fasciculata</i>	Partridge Pea	4.00	0.56%	2	

FAI Route 55 (I-55)
Section 2026-1 Pollinator Pres & Rest
Livingston County
Contract No. 66T32

COMUMB	<i>Comandra umbellata</i>	False Toadflax	0.125	0.00%	2	
CORTRI	<i>Coreopsis tripteris</i>	Tall Coreopsis	1.00	0.73%	2	
ERYYUC	<i>Eryngium yuccifolium</i>	Rattlesnake Master	1.00	0.39%	2	
EUPPER	<i>Eupatorium perfoliatum</i>	Boneset	0.125	1.04%	2	X
EUTGRA	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	0.25	4.54%	2	X
EUTMAC	<i>Eutrochium maculatum</i>	Spotted Joe Pye Weed	0.125	0.62%	2	X
EUTPUR	<i>Eutrochium purpureum</i>	Purple Joe Pye Weed	0.25	0.54%	2	
HELAUT	<i>Helenium autumnale</i>	Sneezeweed	0.125	0.84%	2	X
HELGRO	<i>Helianthus grosseserratus</i>	Saw-tooth Sunflower	0.125	0.10%	2	
HELHEL	<i>Heliopsis helianthoides</i>	False Sunflower	1.00	0.33%	2	
IRIVIS	<i>Iris virginica</i> var. <i>shrevei</i>	Southern Blue Flag	0.25	0.01%	2	
LIAPYC	<i>Liatris pycnostachya</i>	Prairie Blazing Star	1.00	0.57%	2	
LOBSIP	<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.125	3.24%	2	X
LYTALA	<i>Lythrum alatum</i>	Winged Loosestrife	0.125	19.46%	2	X
MAISTE	<i>Maianthemum stellatum</i>	Starry Solomon's Plume	0.25	0.01%	2	
MONFIS	<i>Monarda fistulosa</i>	Wild Bergamot	0.25	0.91%	2	
OLIRID	<i>Oligoneuron riddellii</i>	Riddell's Goldenrod	0.25	1.21%	2	X
PARINT	<i>Parthenium integrifolium</i>	Wild Quinine	0.50	0.18%	2	
PENDIG	<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.25	1.69%	2	
PHLGLAI	<i>Phlox glaberrima</i> var. <i>interior</i>	Marsh Phlox	0.50	0.31%	2	
PHYVIR	<i>Physostegia virginiana</i>	Obedient Plant	1.00	0.57%	2	
PYCVIR	<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.125	1.43%	2	X
RATPIN	<i>Ratibida pinnata</i>	Yellow Coneflower	0.25	0.39%	2	
RUDLAC	<i>Rudbeckia laciniata</i>	Wild Golden Glow	0.25	0.18%	2	
SILPER	<i>Silphium perfoliatum</i>	Cup Plant	0.13	0.01%	2	
SILTER	<i>Silphium terebinthinaceum</i>	Prairie Dock	0.25	0.01%	2	
SYMNOV	<i>Symphotrichum novae-angliae</i>	New England Aster	0.25	0.86%	2	
VERALT	<i>Verbesina alternifolia</i>	Wingstem	0.25	0.12%	2	
VERFAS	<i>Vernonia fasciculata</i>	Common Ironweed	0.25	0.31%	2	
VERVIR	<i>Veronicastrum virginicum</i>	Culver's Root	0.125	5.19%	2	X
ZIZAUR	<i>Zizia aurea</i>	Golden Alexanders	1.00	0.57%	2	X
TOTAL PLS OUNCES/ACRE:			32.50			

Supplemental Floodplain Seed Mix for Mesic-Wet Soils

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
CXCEPH	<i>Carex cephalophora</i>	Short-headed Bracted Sedge	0.25	0.59%	2	
CXGRIS	<i>Carex grisea</i>	Wood Gray Sedge	4.00	2.67%	2	
CXNORM	<i>Carex normalis</i>	Spreading Oval Sedge	2.00	3.71%	2	
CXRADI	<i>Carex radiata</i>	Straight-styled Wood Sedge	1.00	3.04%	2	
CXROSE	<i>Carex rosea</i>	Curly-styled Wood Sedge	0.125	0.49%	2	
CXSPAR	<i>Carex sparganioides</i>	Bur-reed Sedge	0.125	0.18%	2	
ELYVIR	<i>Elymus virginicus</i>	Virginia Wild Rye	2.00	0.62%	1	
GLYSTR	<i>Glyceria striata</i>	Fowl Manna Grass	0.125	0.83%	1	X
HYPAT	<i>Hystrix patula</i>	Bottlebrush Grass	6.00	3.38%	2	
JUNDUD	<i>Juncus dudleyi</i>	Dudley's Rush	0.125	29.68%	2	X
JUNTOR	<i>Juncus torreyi</i>	Torrey's Rush	0.125	14.84%	2	X
SCHSCO	<i>Schizachyrium scoparium</i>	Little Bluestem	1.00	1.11%	1	
SPAPEC	<i>Spartina pectinata</i>	Cord Grass	2.00	0.98%	2	
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ASCINC	<i>Asclepias incarnata</i>	Swamp Milkweed	2.00	0.71%	2	
CAMAME	<i>Campanulastrum americanum</i>	American Bellflower	0.25	3.15%	2	X
COMUMB	<i>Comandra umbellata</i>	False Toadflax	0.125	0.01%	2	
EUTGRA	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	0.125	3.25%	2	X
EUTPUR	<i>Eutrochium purpureum</i>	Purple Joe Pye Weed	1.00	3.12%	2	
GERMAC	<i>Geranium maculatum</i>	Wild Geranium	0.25	0.09%	2	
HELSTR	<i>Helianthus strumosus</i>	Pale-leaved Sunflower	2.00	0.82%	2	
HELHEL	<i>Heliopsis helianthoides</i>	False Sunflower	1.00	0.47%	2	
IRIVIS	<i>Iris virginica var. shrevei</i>	Southern Blue Flag	0.25	0.02%	2	
LOBCAR	<i>Lobelia cardinalis</i>	Cardinal Flower	0.125	3.71%	2	X
LOBSIP	<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.125	4.64%	2	X
MAISTE	<i>Maianthemum stellatum</i>	Starry Solomon's Plume	0.25	0.01%	2	

PENDIG	<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.125	1.21%	2	
PHYVIR	<i>Physostegia virginiana</i>	Obedient Plant	0.25	0.20%	2	
PYCVIR	<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.125	2.04%	2	X
RUDLAC	<i>Rudbeckia laciniata</i>	Wild Golden Glow	1.00	1.04%	2	
RUDTRI	<i>Rudbeckia triloba</i>	Brown-eyed Susan	0.125	0.32%	2	
SOLFLE	<i>Solidago flexicaulis</i>	Zig Zag Goldenrod	0.125	0.78%	2	X
SYMNOV	<i>Symphyotrichum novae-angliae</i>	New England Aster	0.125	0.61%	2	
SYMCHO	<i>Symphyotrichum shortii</i>	Short's Aster	0.25	1.11%	2	
THADIO	<i>Thalictrum dioicum</i>	Early Meadow Rue	0.50	0.27%	2	
VERHAS	<i>Verbena hastata</i>	Blue Vervain	0.125	0.86%	2	X
VERALT	<i>Verbesina alternifolia</i>	Wingstem	0.25	0.17%	2	
VERFAS	<i>Vernonia fasciculata</i>	Common Ironweed	0.125	0.22%	2	
VERVIR	<i>Veronicastrum virginicum</i>	Culver's Root	0.125	7.42%	2	X
ZIZAUR	<i>Zizia aurea</i>	Golden Alexanders	2.00	1.63%	2	X
TOTAL PLS OUNCES/ACRE:			31.63			

HERBICIDE

The Contractor must have all chemicals inspected in their original unopened packaging by the IDOT District 3 Roadside Vegetation Management Specialist prior to beginning work. If any of the chemicals supplied are deemed non-compliant, the Contractor shall supply additional chemicals for inspection at no additional cost until all chemicals to be utilized on this project are deemed acceptable by the Engineer.

The Contractor shall provide the Engineer with copies of herbicide labels and MSDS sheets for the chemicals being used a minimum of five (5) business days prior to the required chemical inspection.

Weeds shall be sprayed with the products described below:

SPOT SPRAY MIXTURE

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro 40.6% (Milestone or equal approved by the Engineer) shall be applied at a rate of thirty-two hundredths (0.32) ounces per gallon of spray mixture (0.25% v/v).

Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt 40.9% (Transline or equal approved by the Engineer) shall be applied at a rate of sixty-four hundredths (0.64) ounces per gallon of spray mixture (0.50% v/v).

Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100% (Liberate or equal approved by the Engineer) shall be applied at a rate of thirty-two hundredths (0.32) of a liquid ounce of product per gallon of spray mixture (0.25% v/v).

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a minimum rate of one (1) ounce per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied as needed in a spot-spray application targeting hard-to-control broadleaf weed species, such as teasel or Canada thistle, and/or species known to be resistant to Glyphosate products. Due to the potential residual properties of these herbicide products, application to site soils shall be avoided through a highly targeted approach by the Contractor.

SELECTIVE BROADCAST SPRAY MIXTURE

Clethodim 26.4% (Intensity or equal approved by the Engineer) shall be applied at a rate of twelve (12) ounces per acre.

Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100% (Liberate or equal approved by the Engineer) shall be applied at a rate of thirty-two hundredths (0.32) of a liquid ounce of product per gallon of spray mixture (0.25% v/v).

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be applied at a minimum rate of one half (0.50) of a liquid ounce of product per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive twelve (12) ounces of Intensity or equal, non-ionic surfactant at a minimum of 0.25% v/v, and spray pattern indicator in ample quantity to be visible after application. This mixture shall be continuously agitated during spraying operations.

CUT-STUMP MIXTURE

Glyphosate, N-(Phosphonomethyl)glycine, in the form of its isopropylamine salt 53.8% (Roundup Custom or equal approved by the Engineer) shall be mixed at a rate of sixty-four (64) ounces per gallon of spray mixture (50.0% v/v).

Isopropylamine salt of imazapyr 27.8% (Arsenal or equal approved by the Engineer) shall be mixed at a rate of eight (8) ounces per gallon of spray mixture (6.25% v/v).

Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100% (Liberate or equal approved by the Engineer) shall be applied at a rate of sixty-four hundredths (0.64) of a liquid ounce of product per gallon of spray mixture (0.50% v/v).

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a minimum rate of one (1) ounce per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

The above products shall be combined with potable water to create one (1) full gallon of spray mixture. This mixture shall be applied as needed in a cut-stump application targeting non-native brush, such as Japanese honeysuckle and autumn olive. Due to the potential residual properties of these herbicide products, application to site soils shall be avoided through a highly targeted approach by the Contractor.

All products are stated in liquid measure.

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to mixing of herbicides.

The Contractor shall download the Material Safety Data Sheets for each herbicide, become familiar with the safety hazards, follow the handling & safety instructions, and provide this information to their field personnel.

EXECUTION

GENERAL CONDITIONS

When possible, Contractor shall utilize equipment having low unit pressure ground contact within planting areas. Unless otherwise approved by the Engineer, the use of heavy equipment shall not be allowed in areas designated as "remnant" on the Plans. Contractor shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Off-road vehicles shall be equipped with off-road or high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with appropriate tires for site conditions, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The tank on all spray equipment shall be equipped with tight-fitting lids which will prevent the contents from splashing or spilling out. Spray mixture tanks shall have sight gauges calibrated in English units for easy measurement, and mechanical or by-pass agitation systems to ensure thorough and continuous mixing of the chemicals. Pumps shall be capable of delivering 30 GPA at or around 40 PSI, and to keep the spray pattern full and steady without pulsation. Spray nozzles shall be selected which are designed to reduce potential herbicide drift.

The Contractor will be required to have all equipment cleaned and in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be completed by the Engineer prior to starting any work. If equipment is not clean or working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of their equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project records books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107 of the Standard Specifications. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record.

Chemicals used will have the lowest environmental impact for the task at hand. Organic or cultural practices will be used whenever practical. Within designated herbicide spray areas that receive foot traffic the Contractor will post marker signs immediately prior to application of herbicide products at the usual point or points of entry. The marker signs shall consist of a four inch by five-inch (4" x 5") sign, vertical or horizontal, attached to the upper portion of a dowel or other supporting device with the bottom of the marker extending no less than twelve inches (12") above the ground. Signs must be visible, if obstructed by taller vegetation a larger supporting device shall be used. The marker sign shall have a white background, and the lettering shall be in a contrasting color. The Marker sign shall state on one side, in letters of not less than three-eighths of an inch (3/8"), the following: "HERBICIDE APPLICATION – STAY OUT UNTIL DRY – FOR MOR INFORMATION CONTACT: (here shall be inserted the name and business telephone number of the applicator for hire)."

PLANTING TIME FRAME

Native seed shall be planted during the following timeframe, the site preparation timeline detailed below shall be constructed based on an appropriate seeding timeframe:

Fall Planting: September 15th – November 30th

Extensions for planting timeframe are not expected to be granted for this project, to attain appropriate seed stratification the Department desires a fall installation. Minor extensions may be possible due to extenuating circumstances at the Engineers discretion and based on time of year, weather, and site conditions.

LAYOUT

The Department shall be responsible for the layout of planting areas.

SITE PREPARATION

Eleven (11) weeks prior to the targeted seeding date, the Department will mow portions of the wildflower interseeding areas to a height of four to six inches (4-6").

Upon execution of the contract, Contractor shall remove existing non-native brush from the wildflower interseeding areas utilizing hand-operated equipment, such as chainsaws, brush cutters, handsaws, or loppers. Upon approval by the Engineer, small walk behind mower-type brush cutters may be utilized provided that their use does not result in rutting or pitting of the soil while in operation. Targeted trees shall be cut flush with the ground, cut stumps shall be treated with an appropriate herbicide spray mixture immediately after cutting (no longer than twenty (20) minutes following cutting). Treat the cut area around the edge with herbicide so the cambium layer will take up the active ingredient. Cut-stump applications shall be accomplished by utilizing wick or sponge-type applicators, unless otherwise approved by the Engineer. All cuttings longer than one (1) foot in length and/or larger than one (1) inch in diameter shall be removed from the site by the Contractor. Smaller cuttings and cutting debris that have been shredded or chipped using hand-held mechanical equipment may be left on site. Cuttings and cutting debris shall not be allowed to accumulate to a depth that will smother existing desirable native species or prevent existing desirable native species from emerging (approximately one-half inch (1/2") maximum depth), appropriate depths shall be determined by the Engineer.

Eight (8) weeks prior to the targeted seeding date, conduct the initial Spot Spray application, including limited spot applications of the Milestone or equal + Transline or equal herbicide mixture utilized on existing hard-to-control and/or Roundup resistant weed species within the planting areas identified for non-selective herbicide application. Species targeted for spot applications are mainly teasel, thistle, wild parsnip, and others as identified by the Engineer.

Eight (8) weeks prior to the targeted seeding date, conduct initial Selective Broadcast Spray application. Planting areas identified for selective herbicide application shall be treated with an application of the Intensity or equal herbicide mixture resulting in a complete kill of all existing grass species. Broadcast or "Boom" spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Four (4) weeks prior to the targeted seeding date, conduct a follow-up Selective Broadcast Spray application. Planting areas identified for selective herbicide application shall be treated with a second application of the Intensity or equal herbicide mixture resulting in a complete kill of all existing grass species. Broadcast or "Boom" spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Prior to seeding, remove dead biomass within planting areas using a landscape rake or other method approved by the Engineer where site conditions allow it.

Once dead biomass is removed from the planting areas, spread soil amendments products within all planting areas, see special provision for SOIL AMENDMENTS.

Immediately after spreading soil amendments and where site conditions allow it, scarify the soil within planting areas in a manner that will integrate amendments into the top layer of soil and prepare a seedbed that will allow good seed-to-soil contact. Soil scarification may be achieved with a landscape rake, Harley rake, drag chain, etc. Disking or tilling is not acceptable. Seedbed must be approved by the Roadside Management Specialist and Engineer prior to beginning seeding operations.

Based on the Contractor's proposed methods for appropriate seedbed preparation, the Engineer may adjust the above listed timeframe and/or order of events accordingly.

PLANTING

Blend the native seed into mixes appropriate for hand or mechanized broadcasting. Mixes shall be constructed as three separate blends for each specified seed mixture:

Blend 2A – 1/2 of all grass species.

Blend 2B – 1/2 of all grass species + 1/3 of remaining species (sedges, rushes, forbs) with the exception of any species indicated as "Surface Sown" in the Native Seed Mixtures found in the Materials Section of this Special Provision.

Blend 2C – All remaining species.

Seed used for hand seeding or mechanized broadcasting shall be mixed with a mychorrizal inoculant at 40 LBS/acre minimum, a rhizobial inoculant at rates recommended by the seed supplier, and an appropriate cover crop. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal. The addition of an inert material as a carrier (such as sand, wheat bran, rice hulls, etc.) may be required to enable an even distribution of seed at specified rates.

Wildflower Interseeding areas shall be seeded by hand or mechanical broadcast methods. If seed is hand broadcast, it shall be mixed with an equal amount of inert material as a carrier (such as sand, wheat bran, rice hulls, etc.) to enable an even distribution of seed at specified rates. A mechanical broadcast seeder with appropriate agitation may also be utilized, such as the Herd Model 750 or equal. When using this seeding method, seed shall be broadcast in three (3) separate applications:

Broadcast "Blend 2A" of the specified seed mix. Where site conditions allow it, drag the seeding area utilizing a drag rake, drag harrow, drag chain, or similar equipment approved by the Engineer. Work native seed into the soil achieving a final planting depth between 0.25" (1/4") – 0.5" (1/2").

Broadcast "Blend 2B" of the specified seed mix. Where site conditions allow it, lightly drag the seeding area utilizing a drag rake, drag harrow, drag chain, or similar equipment approved by the Engineer. Work the native seed into the soil achieving a final planting depth between 0.0625" (1/16") – 0.25" (1/4").

Broadcast "Blend 2C" of the specified seed mix directly atop prepared seedbed. Do not drag or rake.

Do not sow seed in areas where standing water is present, during adverse weather, or when wind speeds exceed ten (10) miles per hour unless otherwise approved by the Engineer.

Hydroseeding of Native Seed is not acceptable.

Where site conditions allow it, roll planting areas within twelve (12) hours after seed installation, or as soon as site conditions permit.

Install erosion control blanket where required.

RESTRICTIONS

Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

METHOD OF MEASUREMENT

This work will be measured for payment in acres of surface area seeded.

The exact locations of seeding will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

10% of this pay item will be held as retainage until final completion of the entire project. The Engineer will release retainage upon satisfaction of the performance criteria stated in PRAIRIE WEED CONTROL and issuance of final completion.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per acre for WILDFLOWER INTERSEEDING (SPECIAL).

SOIL AMENDMENTS

DESCRIPTION

This work shall consist of soil amendment applications to existing soils. Priorities include altering the chemical/nutrient composition of the existing soil profile. The intent is to improve existing site soils, so they are suitable for seed germination and sustained long-term growth.

Soil Amendment pricing shall include all labor, material, equipment, and transport necessary for, and incidental to, the application of soil amendment products to existing site soils.

MATERIALS

Uniform in composition, dry, and free-flowing. Amendment products that become caked or otherwise damaged, making it not suitable for use, will not be accepted.

Contractor shall provide Certifications and/or analysis data for specified soil amendment products prior to installation.

Inorganic Fertilizers and Soil Amendments:

Gypsum – Derived from mined Gypsum with a minimum 90 percent Calcium Sulfate, pelletized with 90 percent passing through No. 50 (0.30-mm) sieve.

Monoammonium Phosphate (MAP) 11-52-0

Sulphate of Potash (SOP) 0-0-50

Urea 46-0-0 – Soluble granular nitrogen fertilizer derived from Urea and stabilized with urease and Nitrification inhibitors dicyandiamide and N-(n-butyl) thiophosphoric triamide. Such as “UFLEXX” or equal approved by the Engineer

Soil Amendment products for this project shall be as follows:

NB NATIVE GRASS SEED MIX FOR DRY-MESIC SOIL PLANTING AREAS		
Product Description	Application Rate	Application Times
Gypsum	40#/1,000 s.f.	Fall 2026
MAP (11-52-0)	6#/1,000 s.f.	Fall 2026
SOP (0-0-50)	4#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

NB PRAIRIE SEED MIX FOR MESIC SOIL PLANTING AREAS – FLATS WEST OF PARKING LOT		
Product Description	Application Rate	Application Times
Gypsum	40#/1,000 s.f.	Fall 2026
MAP (11-52-0)	6#/1,000 s.f.	Fall 2026
SOP (0-0-50)	4#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

NB PRAIRIE SEED MIX FOR MESIC SOIL PLANTING AREAS – FLATS EAST OF PARKING LOT		
Product Description	Application Rate	Application Times
Gypsum	40#/1,000 s.f.	Fall 2026
MAP (11-52-0)	2#/1,000 s.f.	Fall 2026
SOP (0-0-50)	2#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

NB PRAIRIE SEED MIX FOR MESIC SOIL PLANTING AREAS – SLOPES & SWALES		
Product Description	Application Rate	Application Times
Gypsum	20#/1,000 s.f.	Fall 2026
MAP (11-52-0)	3#/1,000 s.f.	Fall 2026
SOP (0-0-50)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

NB SEDGE MEADOW SEED MIX FOR MESIC-WET SOIL PLANTING AREAS		
Product Description	Application Rate	Application Times
Gypsum	40#/1,000 s.f.	Fall 2026
SOP (0-0-50)	4#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

SB NATIVE GRASS SEED MIX FOR DRY-MESIC SOIL PLANTING AREAS		
Product Description	Application Rate	Application Times
Gypsum	20#/1,000 s.f.	Fall 2026
MAP (11-52-0)	6#/1,000 s.f.	Fall 2026
SOP (0-0-50)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	2#/1,000 s.f.	Fall 2026

SB PRAIRIE SEED MIX FOR MESIC SOIL PLANTING AREAS		
Product Description	Application Rate	Application Times
Gypsum	20#/1,000 s.f.	Fall 2026
MAP (11-52-0)	6#/1,000 s.f.	Fall 2026

SOP (0-0-50)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	2#/1,000 s.f.	Fall 2026

SB SEDGE MEADOW SEED MIX FOR MESIC-WET SOIL PLANTING AREAS – EAST OF PARKING LOT		
Product Description	Application Rate	Application Times
Gypsum	20#/1,000 s.f.	Fall 2026
MAP (11-52-0)	3#/1,000 s.f.	Fall 2026
SOP (0-0-50)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

SB SEDGE MEADOW SEED MIX FOR MESIC-WET PLANTING AREAS – WEST OF PARKING LOT		
Product Description	Application Rate	Application Times
Gypsum	40#/1,000 s.f.	Fall 2026
MAP (11-52-0)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

SB SUPPLEMENTAL SEDGE MEADOW SEED MIX FOR MESIC-WET SOIL PLANTING AREAS		
Product Description	Application Rate	Application Times
Gypsum	20#/1,000 s.f.	Fall 2026
MAP (11-52-0)	3#/1,000 s.f.	Fall 2026
SOP (0-0-50)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

SB SUPPLEMENTAL FLOODPLAIN SEED MIX FOR MESIC-WET SOIL PLANTING AREAS		
Product Description	Application Rate	Application Times
Gypsum	20#/1,000 s.f.	Fall 2026
MAP (11-52-0)	3#/1,000 s.f.	Fall 2026
SOP (0-0-50)	6#/1,000 s.f.	Fall 2026
Urea (46-0-0)	3#/1,000 s.f.	Fall 2026

EXECUTION

GENERAL CONDITIONS

When possible, Contractor shall utilize equipment having low unit pressure ground contact within planting areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Off-road vehicles shall be equipped with off-road or high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with appropriate tires for site conditions, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The Contractor will be required to have all equipment cleaned and in proper working order before starting the job. An inspection of on-road, off-road, and implement units will be completed by

the Engineer prior to starting any work. If equipment is not clean or working properly, the Contractor will be required to fix the problem prior to beginning work. The Contractor will be required to demonstrate the calibration of equipment up to forty-eight (48) hours prior to the time of soil amendment operations are to begin.

SOIL AMENDMENT PRODUCT APPLICATIONS

Unless otherwise directed by the Engineer, follow product manufacturer's recommendations for application rates, equipment, equipment settings, and equipment operation. Application rates may be modified by the Engineer based on recommendations provided by a certified soil test and/or on-site conditions.

Ensure that application equipment is properly calibrated prior to beginning work.

Soil amendment products shall be applied utilizing a drop spreader or a broadcast spreader, such as the Herd Model 750 or equal, or other method approved by the Engineer.

Overspread of any soil amendment products onto sidewalks, drives, picnic table pads, parking lot areas, and/or any areas of spread deemed inappropriate by the Engineer shall be cleaned by the Contractor to the satisfaction of the Engineer at no additional cost.

RESTRICTIONS

Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

METHOD OF MEASUREMENT

This work will be measured for payment in acres of surface area where amendments are applied.

The exact locations of soil amendment application will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

10% of this pay item will be held as retainage until final completion of the entire project. The Engineer will release retainage upon satisfaction of the performance criteria stated in PRAIRIE WEED CONTROL and issuance of final completion.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per acre for SOIL AMENDMENTS.

EROSION CONTROL BLANKET (SPECIAL)

MATERIALS

Erosion Control Blankets shall be a Knitted Straw Mat as per Standard Specification Section 1081.10b, Excelsior Blankets are not acceptable.

EXECUTION

Install Erosion Control Blankets within all areas of Supplemental Wetland Seed Mix for Wet Soils, within any drainage areas prone to erosion, and on any slopes that have loose and exposed soil per Standard Specification Section 251.04.

METHOD OF MEASUREMENT

As per Standard Specification Section 251.06b.

10% of this pay item will be held as retainage until final completion of the entire project. The Engineer will release retainage upon satisfaction of the performance criteria stated in PRAIRIE WEED CONTROL and issuance of final completion.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per square yard for EROSION CONTROL BLANKET (SPECIAL).

PRAIRIE WEED CONTROL

DESCRIPTION

This work shall consist of two (2) years of weed control in newly planted native landscape areas, in interseeded areas, and in areas of existing native grasses. Work may include mowing, herbicide applications, and supplemental seeding. Prairie Weed Control priorities are to approach eradication of invasive and weedy species, encourage the healthy growth of native species, and increase overall site biodiversity. The intent is to develop a dense stand of desirable native species with minimal weed content and minimal threat from invasive species or aggressive native species.

This work will begin in the spring of 2027 through the fall of 2028 in areas containing newly seeded native species planted by the Contractor and in areas of existing native grasses. It is anticipated that much of this work will involve herbicide application and spot mowing. The work required for Prairie Weed Control will be accomplished utilizing tools that can be operated by hand (including walk-behind), the use of large (sit on/sit in) equipment is not anticipated. Depending upon site conditions and type of work required at the site, the Engineer may approve limited and appropriate use of large equipment when requested by the Contractor.

Prairie Weed Control pricing shall include all labor, material, equipment, and transport necessary for, and incidental to, short-term maintenance of select natural areas concerning the control of invasive or other targeted woody and herbaceous flora through cultural methods, physical removal, or the application of appropriate herbicides.

MATERIALS

NATIVE SEED

If required for supplemental seeding to meet performance criteria, native seed materials shall follow the Special Provisions for WILDFLOWER SEEDING (SPECIAL), WILDFLOWER INTERSEEDING (SPECIAL), or as otherwise directed by the Engineer.

WATER

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water unless dictated by emergency need. The Contractor shall provide a list of source locations where the potable water will be obtained. The Contractor shall provide this list to the Engineer at or prior to the pre-construction conference. All proposed sources of water shall meet the approval of the Engineer prior to mobilizing for any work.

HERBICIDE

All chemicals necessary for the completion of this work shall be provided by the Contractor. The Contractor must have all chemicals inspected in their original unopened packaging by the IDOT District 3 Roadside Vegetation Management Specialist prior to beginning work. If any of the chemicals supplied are deemed non-compliant, the Contractor shall supply additional chemicals for inspection at no additional cost until all chemicals to be utilized on this project are deemed acceptable by the Engineer.

Products approved for use on this contract include:

HERBICIDES	
Common Brand Name*	Chemical Name
Escort XP or equal	Metsulfuron methyl: Methyl 2[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino] carbonyl] amino] sulfonyl]benzoate 60.0%
FreeLexx or equal	2,4-Dichlorophenoxyacetic acid, choline salt 56.3%
Garlon 3A or equal	triclopyr: 2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, triethylamine salt 44.4%
Garlon 4 Ultra or equal	triclopyr: 2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, butoxyethyl ester 60.45%
Habitat or equal	Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) 28.7%
Intensity or equal	Clethodim: (E)-2-[1-[(3-chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one 26.4%
Method 240 SL or equal	Potassium salt of aminocyclopyrachlor: Potassium salt of 6-amino-5-chloro-2-cyclopropyl-4-pyrimidinecarboxylic acid 25.0%
Milestone or equal	aminopyralid: Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro- 40.6%
Outrider or equal	Sulfometuron-methyl {Methyl 2-[[[(4,6-dimethyl-2-pyrimidinyl)amino]-carbonyl]amino] sulfonyl]benzoate} 75.0%
Pathway or equal	plicloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt 5.4% + 2,4-dichlorophenoxyacetic acid, triisopropanolamine salt 20.9%
Plateau or equal	Ammonium salt of imazapic (+/-)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid 23.6%
Roundup Custom or equal	Glyphosate, N-(Phosphonomethyl)glycine, in the form of its isopropylamine salt 53.8%
Telar XP or equal	Chlorsulfuron: 2-Chloro-N-[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)aminocarbonyl] benzenesulfonamide 75.0%
Tordon 22K or equal	plicloram: 4-amino-3,5,6-trichloropicolinic acid, potassium salt 24.4%
Vastlan or equal	Triclopyr choline: 2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, choline salt 54.72%

ADJUVENTS	
Common Brand Name*	Chemical Name
Bark Oil	Basil Oil with red marker dye
Liberate or equal	Lecithin, methyl esters of fatty acids, and alcohol ethoxylate 100%
MSO	Methylated Seed Oil (MSO) 100.0%
Super Signal Blue or equal	Blue spray pattern indicator

*No product endorsement is implied by inclusion in the above table, brand names are provided for reference only. Products deemed equivalent by the Engineer may be provided in lieu of the brand names listed. Any product not included above being proposed for use by the Contractor must be approved in writing by the Engineer prior to application.

The Contractor shall provide the Engineer with copies of herbicide labels and MSDS sheets for the chemicals being used a minimum of five (5) business days prior to the required chemical inspection.

Mixtures of herbicides used shall be determined by the Contractor on a site-by-site basis in coordination with the Roadside Management Specialist and will be dependent on the species being targeted, the area work is being performed, and the time of year the work is being performed. The Roadside Management Specialist and/or Engineer must approve Contractor's approved herbicide mixtures in writing prior to application.

EQUIPMENT

At a minimum the following items are required:

VEHICLES

- One (1) vehicle or trailer equipped with water tanks capable of holding a minimum of fifty (50) gallons, water tanks shall be equipped with pumps as necessary to accommodate the filling of backpack sprayers.

HAND TOOLS

At a minimum the Contractor shall have the following hand tools on site:

- Backpack and/or Hand Pump Sprayers – Minimum of one (1) per crew member, plus a minimum of two (2) additional for backup
- Brush Cutters – Minimum of one (1) per crew member, plus a minimum of one (1) additional for backup (with additional fuel/batteries)
- Chainsaw – Minimum of 2 (with additional fuel/batteries)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Each of the Contractor's employees shall have all necessary personal protective equipment for herbicide and mowing work, at a minimum this shall include:

- Long pants
- Long-sleeved shirt
- Boots
- Safety glasses
- Chemical resistant rubber gloves
- Protective Chainsaw Chaps
- Hardhat with face shield

- Hearing protection
- Any other PPE required for this work by the Department, OSHA, the herbicide label, equipment manufacturer, or any other regulatory body.

MISCELLANEOUS

- Clean measuring cups with legible markings in standard liquid measure (ounces), measuring cups shall be made of transparent material
- Basin or other equipment to protect the ground during herbicide mixing
- Ample drinking water for all crew members
- A fully stocked first aid kit shall be readily available to all crew members, including a mobile eyewash station
- Copies of herbicide product labels and MSDS

Items listed above are considered the minimum required for the execution of the work, additional equipment shall be provided by the Contractor as required. Contractor is solely responsible for transport, operation, repair, maintenance, and extraction of their equipment.

EXECUTION

Begin immediately upon final inspection of WILDFLOWER SEEDING (SPECIAL) and WILDFLOWER INTERSEEDING (SPECIAL) work, continue for two (2) full growing seasons until final inspection of the PRAIRIE WEED CONTROL work. A “growing season” shall be the months of April – November. Maintenance of Installations that receive final inspection prior to July 15th will be considered maintenance of one full growing season. Installations receiving final inspection after July 15th will require interim maintenance throughout the remaining growing season plus two (2) full growing seasons of maintenance starting the year following final inspection. Interim maintenance, if required, shall include all materials and activities specified in this special provision and shall be considered incidental to the WILDFLOWER SEEDING (SPECIAL) and WILDFLOWER INTERSEEDING (SPECIAL) pay items.

GENERAL CONDITIONS

The Contractor shall keep a log of all maintenance activities performed during the contract period and shall submit it to the Engineer following each workday.

When possible, Contractor shall utilize equipment having low unit pressure ground contact within work areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during weed control operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

The Contractor will be required to have all equipment cleaned and in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be conducted by the Engineer prior to starting any work. If equipment is not clean or working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of their equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project record books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107 of the Standard Specifications. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record.

Chemicals used will have the lowest environmental impact for the task at hand. Organic or cultural practices will be used whenever practical. Within designated herbicide spray areas that receive foot traffic the Contractor will post marker signs immediately prior to application of herbicide products at the usual point or points of entry. The marker signs shall consist of a four inch by five-inch (4" x 5") sign, vertical or horizontal, attached to the upper portion of a dowel or other supporting device with the bottom of the marker extending no less than twelve inches (12") above the ground. Signs must be visible, if obstructed by taller vegetation a larger supporting device shall be used. The marker sign shall have a white background, and the lettering shall be in a contrasting color. The Marker sign shall state on one side, in letters of not less than three-eighths of an inch (3/8"), the following: "HERBICIDE APPLICATION – STAY OUT UNTIL DRY – FOR MOR INFORMATION CONTACT: (here shall be inserted the name and business telephone number of the applicator for hire)."

SPOT MOWING

Spot mowing shall be conducted with the use of a hand-held gas-powered brush cutter equipped with a metal tri-blade (such as the Stihl FS240 equipped with the Stihl Brush Knife tri-blade or similar) and/or walk-behind brush cutters (such as Billy Goat BC26 or similar) targeting areas containing a mix of weed species and mature/flowering desirable native species. Spot mowing shall be utilized to eliminate the reproduction of non-native and non-desirable native species by not allowing the development or dispersal of seed from those targeted species.

Species targeted for spot mowing shall include removal of plant reproductive parts (e.g. flower stalks, un-developed seed heads, etc.). Spot mowing of perennial species shall be conducted in concert with or shall be followed up with herbicide applications.

Spot-mown vegetative materials shall be left on-site in a manner that will not allow regeneration or seed set of the mown species.

SPOT MOWING TIMING

Spot mowing is a key aspect in achieving positive results. Spot mowing must be conducted by the Contractor on a consistent basis and must respond to seasonal weather. Vegetation shall be spot mown as follows:

First Growing Season: In any areas excluded from MOWING (assume up to 20% of planting area), perform spot mowing of target species. A minimum of two (2) spot mowing events will be required.

Second Growing Season: Areas with scattered annual/biennial weed content and high desirable native content shall be spot mown, ensuring that non-native/weedy species are not allowed to develop viable seed. A minimum of four (4) spot mowing events will be required.

A “spot mowing event” shall be defined as an on-site event where all required spot mowing activities for the treatment of target species are conducted. A single “event” does not necessarily mean a single “visit” and may include the application of multiple techniques, may include multiple on-site visits and/or may include multiple days.

Spot mowing may commence as early as April and subsequently two-four weeks apart or at any time a large number of weed species begin to flower, or as otherwise directed by the Engineer. Spot mowing shall be conducted prior to weed species developing viable seed.

It is the Contractor’s responsibility to monitor the site in order to determine when spot mowing is required. However, if the Engineer determines at any time that the project site requires spot mowing, they will notify the Contractor. No later than three (3) business days following notification, the Contractor shall conduct the requested spot mowing.

SPOT HERBICIDE APPLICATIONS

Small, scattered populations or individual specimens of undesirable species shall be controlled with spot herbicide applications. The following methods are appropriate:

Backpack Spray Treatments – Contractor shall utilize a minimum 4-gallon backpack style sprayer (such as Birchmeier Iris 15 AT3 or similar) for the main herbicide mixtures being applied.

Hand Pump Spray Treatments – For smaller populations of targeted species requiring a lesser amount of mixed products or for cut-stump treatments, the Contractor can opt to utilize a 1 or 2-gallon hand pump style sprayer (such as Sprayers Plus Landscape Pro or similar) instead of a backpack style sprayer.

Herbicide Wicking – In areas of high-quality native vegetation where desirable species are directly adjacent to targeted plants, or where the growth habit of the target plant makes it impossible to avoid off-target damage, the appropriate herbicide shall be selectively wiped onto the target plant utilizing a sponge-wicking applicator or a cloth glove saturated with herbicide worn over an appropriate chemical resistant glove (a common technique referred to as “hand-wicking”).

SPOT HERBICIDE APPLICATION TIMING

Spot herbicide applications must be conducted by the Contractor on a consistent basis and must respond to seasonal weather and to the life cycle of each target species. Vegetation shall be spot sprayed as follows:

First Growing Season: A minimum of two (2) spot herbicide application events will be required.

Second Growing Season: A minimum of three (3) spot herbicide application events will be required.

An “application event” shall be defined as an on-site spot herbicide application event where all required herbicide activities for the treatment of target species are conducted. A single “event” does not necessarily mean a single “visit” and may include the application of multiple products, may include multiple on-site visits and/or may include multiple days.

TREATMENT OF WOODY SPECIES

The Contractor shall remove target woody species that are less than six inches (6”) DBH utilizing hand-operated equipment, such as chainsaws, brush cutters, handsaws, or loppers. Upon approval by the Engineer, small walk behind mower-type brush cutters may be utilized provided that their use does not result in rutting or pitting of the soil while in operation.

- **FREE-STANDING TREES**
Free-standing targeted trees shall be cut flush with the ground, cut stumps shall be treated as described herein.
- **ENTANGLED FENCE-LINE TREES**
Targeted trees that are enwrapped, have grown around, are within six inches (6”) of fencing in a manner that will not allow the removal of the tree without significant damage to the fence or Contractor’s equipment, shall be cut at a height just above the top of fence. Treat the top of the cut stump with an appropriate herbicide spray mixture immediately after cutting, treating the cut area around the edge with herbicide so the cambium layer will take up the active ingredient. In addition to treating the top of the cut stump, the Contractor shall implement two (2) frill treatment lines to the stump where feasible, one approximately two-thirds up the height of the stump and one approximately one-third up the height of the stump.

The Contractor shall conduct woody species herbicide treatments to all cut-stumps, re-sprouts, re-growth, or other remaining live plants of all target species.

Woody species herbicide treatments during the growing season may be applied using foliar applications and/or cut-stump application using an appropriate herbicide.

Woody species herbicide treatments during the dormant season may be applied with cut-stump and/or basal bark application using an appropriate herbicide.

Foliar Treatment: Apply an appropriate herbicide spray mixture to the leaves of target species after leaves have fully opened in the spring and up to a few weeks prior to fall senescence. Provide full coverage of the leaves while limiting overspray and dripping. To reduce the chance for overspray, Foliar Treatments shall only be applied to smaller re-sprouts that are low to the ground unless otherwise approved by the Engineer.

Cut-Stump Treatment: All cut-stumps shall be treated with an appropriate herbicide spray mixture immediately after cutting (no longer than twenty (20) minutes following cutting). Treat the cut area around the edge with herbicide so the cambium layer will take up the active ingredient, if using oil-based product also treat any remaining bark. *Juniper spp* that have been cut below the last bottom branch shall be exempt from herbicide requirements.

Basal Bark Treatment: Apply herbicide directly to the trunk of the woody target species that are four inches or less at the base. Apply herbicide directly to the tree trunk until thoroughly wet but not to the point of runoff, around the entire circumference, starting at 12-18" above the soil to near the ground plane. Apply during dormancy, except when snow or water prevents spraying to the ground plane. Optimal results are achieved when applications are made to young stems which have not developed the thicker bark characteristic of slower growing older trees.

Cut-stump applications shall be accomplished by utilizing wick or sponge-type applicators, unless otherwise approved by the Engineer.

All cuttings longer than one (1) foot in length and/or larger than one (1) inch in diameter shall be piled within the project site at locations approved by the Engineer. Piled cuttings shall be disposed of by the Department. Smaller cuttings and cutting debris that have been shredded or chipped using hand-held mechanical equipment may be left on site. Cuttings and cutting debris shall not be allowed to accumulate to a depth that will smother existing desirable native species or prevent existing desirable native species from emerging (approximately one-half inch (1/2") maximum depth), appropriate depths shall be determined by the Engineer.

PERFORMANCE CRITERIA

Measures of species dominance, richness, coverage, composition, and/or distribution shall be determined by the Roadside Management Specialist and/or the Engineer.

Throughout the maintenance term:

Zero (0) aggressive native species, non-native species, nor invasive species shall be allowed to become established on the site and/or be allowed to colonize.

With the exception of planted cover crops, none of the top five (5) dominant species within any planting area shall be aggressive native, non-native, or invasive species (See Appendix-A). Dominance shall be determined by ocular assessment using meander methodology.

Within three (3) months of seed installation or by June 1st of the following year if seed installation is completed in the fall:

Total vegetative aerial cover in all areas seeded with cover crop shall be greater to or equal than seventy-five percent (75%) as measured using meander methodology.

By the end of the first (1st) full growing season, in addition to fulfilling the above:

Total vegetative aerial cover in all WILDFLOWER SEEDING areas shall be greater to or equal to ninety percent (90%) as measured using meander methodology.

Twenty-five percent (25%) of the WILDFLOWER SEEDING species installed within each plant community shall be alive and apparent.

By the end of the second (2nd) full growing season, in addition to fulfilling the above:

There shall be no area(s) greater than 0.25 m² that is devoid of vegetation.

There shall be no rills, gullies, or other evidence of significant or on-going erosion or areas of high erosion potential present throughout the project area.

Fifty percent (50%) of the WILDFLOWER SEEDING species installed within each plant community shall be alive and apparent.

Native vegetative aerial cover within WILDFLOWER SEEDING planting areas shall be at least seventy-five percent (75%) as measured using meander methodology and ocular assessment.

To ensure species richness at the local level, any given square meter (1.0 m²) within WILDFLOWER SEEDING planting areas shall contain a minimum of three (3) different acceptable species and shall include at least one (1) species seeded as specified.

The following standards shall be achieved for each plant community:

Native Grass Seed Mix for Dry-Mesic Soils

Total FQI – 7.8
Total Mean C Value – 2.1
Native FQI – 10.5
Native Mean C Value – 3.5

Prairie Seed Mix for Mesic Soils**

Total FQI – 25.8
Total Mean C Value – 2.4
Native FQI – 34.4
Native Mean C Value – 4.0

Sedge Meadow Seed Mix for Mesic-Wet Soils**

Total FQI – 26.9
Total Mean C Value – 2.3
Native FQI – 35.9
Native Mean C Value – 3.9

Supplemental Sedge Meadow Seed Mix for Mesic-Wet Soils***

Total FQI – 20.0
Total Mean C Value – 2.0
Native FQI – 30.0
Native Mean C Value – 2.3

Supplemental Floodplain Sedge Meadow Seed Mix for Mesic-Wet Soils***

Total FQI – 17.0
Total Mean C Value – 2.0
Native FQI – 23.5
Native Mean C Value – 3.0

**Supplemental wetland and woodland edge seed mixes will be assessed as part of the base mix it is applied to (i.e. Prairie Seed Mix for Mesic Soils or Sedge Meadow Seed Mix for Mesic-Wet Soils), no separate standard is required for these supplemental seed areas.

***Supplemental Sedge Meadow and Floodplain Sedge Meadow seed mixes may be assessed including existing remnant native species in the survey.

All Floristic Quality Index (FQI) and Conservatism (C) data shall conform to those used in the "Flora of the Chicago Region", (Willhelm & Rericha, 2017) or the most recent version of the US Army Corps of Engineers FQA calculator for Illinois or the Chicago Region.

REMEDIATION

If native planting areas fail to meet the terms of the performance criteria described above, the Contractor shall develop and submit to the Engineer, a remedial action plan that takes into consideration the site goals and specific deficiencies causing the remedial action. Contractor will implement the approved remedial action plan and submit a report that describes the remedial action taken. If remedial seeding or planting is required, the Contractor will not be required to perform additional remedial seeding or planting in the same area for a minimum of one growing season. After one full growing season following the remedial planting, the performance criteria must be met, or additional remedial action must be taken. Final acceptance shall not be granted until all planting areas meet performance criteria and/or meets the stated intent of this provision.

RESTRICTIONS

Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

METHOD OF MEASUREMENT

This work will be measured for payment based on the number of acres effectively treated as determined by the Engineer. Contractors shall not be compensated for travel time to sites.

10% of this pay item will be held as retainage until final completion of the entire project. The Engineer will release retainage upon satisfaction of the performance criteria and issuance of final completion.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per acre for PRAIRIE WEED CONTROL.

MOWING

DESCRIPTION

This work includes mechanically mowing all newly seeded areas.

Mowing pricing shall include all labor, material, equipment, and transport necessary for, and incidental to, mechanical mowing of planting areas.

EQUIPMENT

At a minimum the following items are required:

VEHICLES

- One (1) tractor or skid steer equipped with a mower. Use of a sickle or flail mower is preferred, if using a rotary mower the Contractor shall rake, collect, remove, and dispose off-site any thatch that is greater than one inch (1") thick. Appropriate thickness of thatch shall be determined by the Engineer.

HAND TOOLS

At a minimum the Contractor shall have the following hand tools on site:

- Brush Cutters – Minimum of one (1) hand-held brush cutter per crew member, plus a minimum of one (1) additional for backup (with additional fuel/batteries) AND/OR one (1) walk-behind brush cutter

EXECUTION

GENERAL CONDITIONS

All mowing shall be conducted in accordance with all applicable codes and by personnel with appropriate training in safety and in the use of the machinery being utilized. The Contractor shall keep a log of all mowing activities performed during the contract period and shall submit it to the Engineer following each workday.

When possible, Contractor shall utilize equipment having low unit pressure ground contact within work areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during mowing operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

The Contractor will be required to have all equipment in proper working order before starting the job. All machinery and implements shall be thoroughly cleaned and free of potential weed seeds prior to beginning work. An inspection of the Contractor's equipment will be completed by the Engineer prior to starting any work. If equipment is not working properly or is not clean, the Contractor will be required to fix the problem prior to starting the work.

To reduce thatch at no time shall more than six (6) inches (height) of vegetation be cut in a pass unless otherwise approved by the Engineer. If mowing results in "knock-down" rather than severed vegetation, the Contractor shall re-mow all unacceptable areas at no additional cost, ensuring that vegetation is severed completely.

On slopes that are too steep to mow, around structures (trees, fencing, buildings, etc.), and in areas that are too wet to mow, mowing shall be conducted with the use of a hand-held brush cutter (such as the Stihl FS240 or similar) or walk-behind brush cutter (such as Billy Goat BC26 or similar) only.

MOWING TIMING

Mowing is a key aspect in achieving positive results. Mowing must be conducted by the Contractor on a consistent basis and must respond to seasonal weather. Vegetation shall be high mown as follows:

First Growing Season: Kept under twelve (12) inches or other height as determined by the Engineer. A minimum of four (4) mowing events will be required. It is anticipated that the entire planting area will be mown during each event, however high performing areas with low weed content may be excluded from the mowing as determined by the Engineer. Only actual acres mown will be approved for payment following each mowing event.

Second Growing Season: Areas with high annual/biennial weed content shall be kept under twenty-four (24) inches or other height as determined by the Engineer. A minimum of two (2) mowing events will be required. It is anticipated that smaller sections of planting area will be mown during each event (assume up to 20% of planting area), resulting in large areas being excluded from the mowing as determined by the Engineer. Only actual acres mown will be approved for payment following each mowing event.

A “mowing event” shall be defined as an on-site event where all required mowing activities for the treatment of target species are conducted. A single “event” does not necessarily mean a single “visit”, will not necessarily include mowing all planted acres, and may include the application of multiple techniques, may include multiple on-site visits and/or may include multiple days.

Mowing shall commence during late May/early June and subsequently two to four weeks apart or at any time the planting area grows to a height exceeding the above limitations, any time a large number of weed species begin to flower, or as otherwise directed by the Engineer. Mowing shall be conducted prior to weed species developing viable seed.

It is the Contractor’s responsibility to monitor the site in order to determine when mowing is required. However, if the Engineer determines at any time that the project site requires mowing, they will notify the Contractor. No later than three (3) days following notification, the Contractor shall conduct the requested mowing.

METHOD OF MEASUREMENT

This work will be measured for payment based on the number of acres mowed as determined in the field by the Engineer.

10% of this pay item will be retained until final completion of the entire project. The Engineer will release retainage upon satisfaction of the performance criteria stated in PRAIRIE WEED CONTROL and issuance of final completion.

BASIS OF PAYMENT

This work will be paid for at the contract unit price per acre for MOWING.

APPENDIX A – LIST OF TARGET WEED SPECIES

It is the responsibility of the Contractor to locate, identify, and treat targeted species that may endanger the long-term health of existing native plant communities within the project area/site. Following is a list of targeted invasive and weedy species that can inhibit the successful establishment of desirable native species. This list is not representative of the site and should not be considered an inventory. When present, the listed species shall be targeted by the Contractor along with any species identified by the Engineer:

<i>Acer negundo</i>	BOXELDER ³
<i>Acer platanoides</i>	NORWAY MAPLE
<i>Achillea</i> spp.	YARROW ³
<i>Aegopodium podagraria</i>	GOUTWEED
<i>Agrostis gigantea</i>	REDTOP
<i>Agrostis stolonifera</i>	CREeping BENTGRASS ³
<i>Ailanthus altissima</i>	TREE OF HEAVEN
<i>Alliaria petiolata</i>	GARLIC MUSTARD
<i>Alnus glutinosa</i>	EUROPEAN BLACK ALDER
<i>Ambrosia artemisiifolia</i>	COMMON RAGWEED ^{1, 3}
<i>Ambrosia trifida</i>	GIANT RAGWEED ^{1, 3}
<i>Anthriscus sylvestris</i>	WILD CHERVIL
<i>Arctium minus</i>	COMMON BURDOCK
<i>Berberis thunbergii</i>	JAPANESE BARBERRY
<i>Brassica nigra</i>	BLACK MUSTARD ²
<i>Bromus inermis</i>	SMOOTH BROME
<i>Bromus tectorum</i>	DOWNY BROME
<i>Butomus umbellatus</i>	FLOWERING RUSH
<i>Cannabis sativa</i>	MARIJUANA ¹
<i>Carduus nutans</i>	MUSK THISTLE ¹
<i>Celastrus orbiculatus</i>	ASIAN BITTERSWEET ¹
<i>Centaurea maculosa</i>	SPOTTED KNAPWEED
<i>Chenopodium album</i>	LAMB'S QUARTERS ²
<i>Cirsium arvense</i>	CANADA THISTLE ¹
<i>Cirsium vulgare</i>	BULL THISTLE
<i>Conium maculatum</i>	POISON HEMLOCK ¹
<i>Cornu's racemosa</i>	GRAY DOGWOOD ³
<i>Cynanchum louiseae</i>	BLACK SWALLOW-WORT
<i>Cynanchum rossicum</i>	PALE SWALLOW-WORT
<i>Cyperus esculentus</i>	YELLOW NUTSEDGE ³
<i>Dactylis glomerata</i>	ORCHARDGRASS
<i>Daucus carota</i>	QUEEN ANNE'S LACE ²
<i>Dioscorea oppositifolia</i>	CHINESE YAM
<i>Dipsacus</i> spp.	TEASEL ¹
<i>Echinochloa crus-galli</i>	BARNYARD GRASS
<i>Egeria densa</i>	BRAZILIAN WATERWEED
<i>Eichhornia crassipes</i>	WATER HYACINTH
<i>Elaeagnus angustifolia</i>	RUSSIAN OLIVE ¹
<i>Elaeagnus pungens</i>	THORNY OLIVE ¹
<i>Elaeagnus umbellata</i>	AUTUMN OLIVE ¹
<i>Elymus repens</i>	QUACKGRASS
<i>Erigeron canadensis</i>	MARE'S TAIL ³
<i>Erigeron annuus</i>	ANNUAL FLEABANE ³
<i>Erigeron strigosus</i>	DAISY FLEABANE ³
<i>Euonymus alatus</i>	BURNING BUSH
<i>Euonymus fortunei</i>	WINTERCREEPER
<i>Euphorbia esula</i>	LEAFY SPURGE
<i>Fallopia japonica</i>	JAPANESE KNOTWEED ¹
<i>Fallopia sachalinensis</i>	GIANT KNOTWEED ¹
<i>Fallopia × bohemica</i>	BOHEMIAN KNOTWEED ¹
<i>Frangula alnus</i>	GLOSSY BUCKTHORN

<i>Hedera helix</i>	ENGLISH IVY
<i>Hemerocallis fulva</i>	ORANGE DAYLILY
<i>Heracleum mantegazzianum</i>	GIANT HOGWEED ¹
<i>Hesperis matronalis</i>	DAMES ROCKET
<i>Humulus japonicus</i>	JAPANESE HOPS
<i>Hydrilla verticillata</i>	HYDRILLA
<i>Hydrocharis morsus-ranae</i>	EUROPEAN FROGBIT
<i>Hypericum perforatum</i>	COMMON ST. JOHN'S WORT
<i>Ipomoea purpurea</i>	MORNING GLORY ²
<i>Iris pseudacorus</i>	YELLOW IRIS
<i>Lespedeza cuneata</i>	SERICEA LESPEDEZA
<i>Ligustrum spp. (non-native)</i>	PRIVET (non-native)
<i>Lolium multiflorum</i>	ANNUAL RYE/ITALIAN RYEGRASS
<i>Lonicera spp.</i>	HONEYSUCKLE (non-native) ¹
<i>Lotus corniculatus</i>	BIRDS FOOT TREFOIL
<i>Lysimachia nummularia</i>	MONEYWORT
<i>Lythrum salicaria</i>	PURPLE LOOSESTRIFE
<i>Marsilea quadrifolia</i>	EUROPEAN WATERCLOVER
<i>Medicago lupulina</i>	BLACK MEDIC
<i>Medicago sativa</i>	ALFALFA
<i>Melilotus albus</i>	WHITE SWEET CLOVER
<i>Melilotus officinalis</i>	YELLOW SWEET CLOVER
<i>Microstegium vimineum</i>	JAPANESE STILTGRASS
<i>Morus alba</i>	WHITE MULBERRY
<i>Myosotis sylvatica</i>	GARDEN FORGET-ME-NOT
<i>Myriophyllum aquaticum</i>	PARROT FEATHER
<i>Myriophyllum spicatum</i>	EURASIAN WATERMILFOIL
<i>Myosotis scorpioides</i>	WATER FORGET-ME-NOT
<i>Najas minor</i>	BRITTLE WATERNYMPH
<i>Nepeta cataria</i>	CATNIP
<i>Nymphoides peltata</i>	YELLOW FLOATING HEART
<i>Oenothera biennis</i>	EVENING PRIMROSE ³
<i>Onopordum acanthium</i>	SCOTCH THISTLE
<i>Pastinaca sativa</i>	WILD PARSNIP
<i>Phalaris arundinacea</i>	REED CANARY GRASS
<i>Phragmites australis (non-native)</i>	COMMON REED (non-native)
<i>Pistia stratiotes</i>	WATER LETTUCE
<i>Poa pratensis</i>	KENTUCKY BLUEGRASS
<i>Populus alba</i>	WHITE POPLAR
<i>Populus deltoides</i>	COTTONWOOD ³
<i>Potamogeton crispus</i>	CURLY-LEAF PONDWEED
<i>Pueraria montana var. lobata</i>	KUDZU ¹
<i>Ranunculus ficaria</i>	LESSER CELANDINE ¹
<i>Rhamnus cathartica</i>	COMMON BUCKTHORN
<i>Robinia pseudoacacia</i>	BLACK LOCUST
<i>Rorippa nasturtium</i>	WATERCRESS
<i>Rumex acetosella</i>	SHEEP SORREL
<i>Rumex crispus</i>	CURLY DOCK
<i>Rosa multiflora</i>	MULTIFLORA ROSE
<i>Rubus spp.</i>	RASPBERRY/BLACKBERRY ³
<i>Salix interior</i>	SANDBAR WILLOW ³
<i>Saponaria officinalis</i>	BOUNCING BET

<i>Schedonorus arundinaceus</i>	TALL FESCUE
<i>Securigaria varia</i>	CROWN VETCH
<i>Setaria spp.</i>	FOXTAIL/MILLET ²
<i>Silene latifolia var. alba</i>	BLADDER CAMPION
<i>Solidago altissima</i>	TALL GOLDENROD ³
<i>Solidago canadensis</i>	CANADA GOLDENROD ³
<i>Solidago sempervirens</i>	SEASIDE GOLDENROD
<i>Sonchus arvensis</i>	PERENNIAL SOWTHISTLE ¹
<i>Sorghum almum</i>	COLUMBUS GRASS ¹
<i>Sorghum halepense</i>	JOHNSONGRASS ¹
<i>Symphotrichum lateriflorum</i>	SIDE FLOWERING ASTER ³
<i>Symphotrichum pilosum</i>	HAIRY ASTER ³
<i>Tamarix spp.</i>	SALT CEDAR ¹
<i>Tanacetum vulgare</i>	COMMON TANSY
<i>Taraxacum officinalis</i>	COMMON DANDELION ²
<i>Thlaspi arvense</i>	FIELD PENNYCRESS ²
<i>Torilis japonica</i>	JAPANESE HEDGE PARSLEY
<i>Toxicodendron radicans</i>	POISON IVY ³
<i>Trifolium pratense</i>	RED CLOVER ²
<i>Trifolium repens</i>	WHITE CLOVER ²
<i>Typha angustifolia</i>	NARROWLEAF CATTAIL ³
<i>Typha latifolia</i>	COMMON CATTAIL ³
<i>Ulmus pumila</i>	SIBERIAN ELM
<i>Verbascum blattaria</i>	MOTH MULLEIN ²
<i>Verbascum thapsus</i>	COMMON MULLEIN ²
<i>Vinca minor</i>	PERIWINKLE
<i>Xanthium strumarium</i>	ROUGH COCKLEBUR

¹Species classified as a Noxious Weed in the State of Illinois as of the date of this document

²Species considered common weeds requiring control, not specifically considered invasive

³Species considered native (or questionably native) in the State of Illinois but often has an aggressive growth behavior that may require control on a case-by-case basis.

APPENDIX B – GLOSSARY OF TERMS USED IN THIS SPECIAL PROVISION

Acceptable Species: Vegetative species that have been seeded or planted as specified and/or volunteer native species with a C-value of 2 or greater, except for any of those species listed in Appendix-A.

Aerial coverage: The vegetation covering the ground surface above the ground surface; including all leaves, stems, flower parts, etc. Aerial coverage can be visualized by considering a bird's-eye view of the vegetation.

Cover: The vertical projection of vegetation from the ground as viewed from above.

Cut-Stump: This is the part of a tree remaining in the ground at the original location once the tree has been cut and removed. The top of the cut stump should consist of a level, horizontal surface parallel to the ground plane.

DBH: An acronym meaning "Diameter at Breast Height". The typical standard for this is measured at four and one-half feet (4.5') above where the tree's trunk meets the ground.

Density: Numbers of individuals or stems per unit area.

Dominant Species: Plant species or species groups, which by means of their number, coverage, or size, have considerable influence or control upon the conditions or existence of associated species.

Erosion: The washing away or dislodging of soil by water, wind, or ice.

Established: Defined in botany as a species being allowed to thrive and reproduce.

Growing Season: The part of a calendar year during which rainfall and temperature allow plants to grow. In the Midwest the growing season typically occurs between the months of April thru October or November.

Invasive Species: An undesirable species of plant or animal, often non-native, that competes with desirable native plants and animals for light, space, water, food, and nutrients. An invasive species, left untreated, will destroy the integrity of an ecosystem, and will often become the dominant plant or animal inhabiting a particular landscape.

Native Species: 1) an indigenous species that is normally found as part of a particular ecosystem; 2) a species that was present in a defined North American area prior to European settlement.

Ocular Assessment: The act of making a professional judgment about something based on what is physically seen by the observer's eyes.

Plant Community: A group of plants that need a particular set of environmental conditions (i.e., light, soil type, moisture) to thrive. Examples include dry prairie, mesic prairie, wet prairie, wetland, emergent, savanna, dry-mesic woodland, etc.

Planting Area: The physical area(s) of a project site receiving site preparation, planting and/or stewardship activities. A plant community may consist of multiple planting areas.

Target Species: The species or type of plant specifically being focused on for treatment.

Vigorous: Well-rooted in soil and displaying healthy, strong vegetative growth.

Weedy Native: A native species that displays weedy characteristics, such as: 1.) an excessive growth habit that may inhibit the healthy growth of other more desirable native species; 2.) the ability to produce an abundance of seed, spread rapidly, and inhibit the healthy growth of other more desirable native species; 3.) an extensive root system or other vegetative structure that spreads aggressively above or below ground; 4.) the ability to produce chemicals that are toxic to surrounding plants (allelopathy); or 5.) a poor aesthetic or appearance.

CEMENT, FINELY DIVIDED MINERALS, ADMIXTURES, CONCRETE, AND MORTAR (BDE)

Effective: January 1, 2025

Revised: January 1, 2026

Revise the first paragraph of Article 285.05 of the Standard Specifications to read:

“285.05 Fabric Formed Concrete Revetment Mat. The grout shall consist of a mixture of cement, fine aggregate, and water so proportioned and mixed as to provide a pumpable slurry. Fly ash or ground granulated blast furnace (GGBF) slag, and concrete admixtures may be used at the option of the Contractor. The grout shall have an air content of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The mix shall obtain a compressive strength of 2500 psi (17,000 kPa) at 28 days according to Article 1020.09.”

Revise Article 302.02 of the Standard Specifications to read:

“302.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Hydrated Lime	1012.01
(d) By-Product, Hydrated Lime	1012.02
(e) By-Product, Non-Hydrated Lime	1012.03
(f) Lime Slurry	1012.04
(g) Fly Ash	1010
(h) Soil for Soil Modification (Note 1)	1009.01
(i) Bituminous Materials (Note 2)	1032

Note 1. This soil requirement only applies when modifying with lime (slurry or dry).

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250.”

Revise Article 312.07(c) of the Standard Specifications to read:

“(c) Cement1001”

Add Article 312.07(i) of the Standard Specifications to read:

“(i) Ground Granulated Blast Furnace (GGBF) Slag1010”

Revise the first paragraph of Article 312.09 of the Standard Specifications to read:

“312.09 Proportioning and Mix Design. At least 60 days prior to start of placing CAM II, the Contractor shall submit samples of materials to be used in the work for proportioning and testing. The mixture shall contain a minimum of 200 lb (120 kg) of cement per cubic yard (cubic meter). Cement may be replaced with fly ash or ground granulated blast furnace (GGBF) slag according to Article 1020.05(c)(1) or 1020.05(c)(2), respectively, however the minimum cement content in the mixture shall be 170 lbs/cu yd (101 kg/cu m). Blends of coarse and fine aggregates will be permitted, provided the volume of fine aggregate does not exceed the volume of coarse aggregate. The Engineer will determine the proportions of materials for the mixture according to

the “Portland Cement Concrete Level III Technician Course” manual. However, the Contractor may substitute their own mix design. Article 1020.05(a) shall apply, and a Level III PCC Technician shall develop the mix design.”

Revise Article 352.02 of the Standard Specifications to read:

“**352.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement (Note 1)	1001
(b) Soil for Soil-Cement Base Course	1009.03
(c) Water	1002
(d) Bituminous Materials (Note 2)	1032

Note 1. Bulk cement may be used for the traveling mixing plant method if the equipment for handling, weighing, and spreading the cement is approved by the Engineer.

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250.”

Revise Article 404.02 of the Standard Specifications to read:

“**404.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.08
(d) Bituminous Material (Tack Coat)	1032.06
(e) Emulsified Asphalts (Note 1) (Note 2)	1032.06
(f) Fiber Modified Joint Sealer	1050.05
(g) Additives (Note 3)	

Note 1. When used for slurry seal, the emulsified asphalt shall be CQS-1h according to Article 1032.06(b).

Note 2. When used for micro-surfacing, the emulsified asphalt shall be CQS-1hP according to Article 1032.06(e).

Note 3. Additives may be added to the emulsion mix or any of the component materials to provide the control of the quick-traffic properties. They shall be included as part of the mix design and be compatible with the other components of the mix.

Revise the last sentence of the fourth paragraph of Article 404.08 of the Standard Specifications to read:

“When approved by the Engineer, the sealant may be dusted with fine sand, cement, or mineral filler to prevent tracking.”

Revise Note 2 of Article 516.02 of the Standard Specifications to read:

“Note 2. The sand-cement grout mix shall be according to Section 1020 and shall be a 1:1 blend of sand and cement comprised of a Type I, IL, or II cement at 185 lb/cu yd (110 kg/cu m). The maximum water cement ratio shall be sufficient to provide a flowable mixture with a typical slump of 10 in. (250 mm).”

Revise Note 2 of Article 543.02 of the Standard Specifications to read:

“Note 2. The grout mixture shall be 6.50 hundredweight/cu yd (385 kg/cu m) of cement plus fine aggregate and water. Fly ash or ground granulated blast furnace (GGBF) slag may replace a maximum of 5.25 hundredweight/cu yd (310 kg/cu m) of the cement. The water/cement ratio, according to Article 1020.06, shall not exceed 0.60. An air-entraining admixture shall be used to produce an air content, according to Article 1020.08, of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The Contractor shall have the option to use a water-reducing or high range water-reducing admixture.”

Revise Article 583.01 of the Standard Specifications to read:

“**583.01 Description.** This work shall consist of placing cement mortar along precast, prestressed concrete bridge deck beams as required for fairing out any unevenness between adjacent deck beams prior to placing of waterproofing membrane and surfacing.”

Revise Article 583.02(a) of the Standard Specifications to read:

“(a) Cement1001”

Revise the first paragraph of Article 583.03 of the Standard Specifications to read:

“**583.03 General.** This work shall only be performed when the air temperature is 45 °F (7 °C) and rising. The mixture for cement mortar shall consist of three parts sand to one part cement by volume. The amount of water shall be no more than that necessary to produce a workable, plastic mortar.”

Revise Article 606.02(h) of the Standard Specifications to read:

“(h) Fibers (Note 1)1014”

Revise Note 1 in Article 606.02(h) of the Standard Specifications to read:

“Note 1. Fibers, when required, shall only be used in the concrete mixture for slipform applications.”

Revise the third paragraph in Article 606.10 of the Standard Specifications to read:

“Welded wire fabric shall be 6 x 6 in. (150 x 150 mm) mesh, #4 gauge (5.74 mm), 58 lb (26 kg) per 100 sq ft (9 sq m).”

Revise Article 1001.01(d) of the Standard Specifications to read:

“(d) Rapid Hardening Cement. Rapid hardening cement shall be according to the Bureau of Materials Policy Memorandum “Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants”, and ASTM C 1600, Type URH, Type VRH, or Type RH-CAC. It shall be used according to Article 1020.04 or when approved by the Engineer. The Contractor shall submit a report from the manufacturer or an independent lab that contains results for testing according to ASTM C 1600 which shows the cement meets the requirements of either Type URH, Type VRH, or Type RH-CAC. Test data shall be less than 1 year old from the date of submittal.

Revise Article 1001.01(e) of the Standard Specifications to read:

“(e) Other Cements. Other cements shall be according to the Bureau of Materials Policy Memorandum “Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants”, and ASTM C 1157 or ASTM C 1600, as applicable. Other cements shall be used according to Article 1020.04 or when approved by the Engineer. For cements according to ASTM C 1157, the Contractor shall submit a report from the manufacturer or an independent lab that contains results of tests which shows the cement meets the requirements Type GU, HE, MS, MH, or LH. For cements according to ASTM C 1600, the Contractor shall submit a report from the manufacturer or an independent lab that contains results of tests which shows the cement meets the requirements Type MRH or GRH. Test data shall be less than 1 year old from the date of submittal.”

Revise Article 1002.02 of the Standard Specifications to read:

“**1002.02 Quality.** Water used with cement in concrete or mortar and water used for curing concrete shall be clean, clear, and free from sugar. In addition, water shall be tested and evaluated for acceptance according to one of the following options.

OPTION 1.

(a) Acceptable limits for acidity and alkalinity when tested according to ITP T 26.

- (1) Acidity -- 0.1 Normal NaOH 2 ml max.*
- (2) Alkalinity -- 0.1 Normal HCl..... 10 ml max.*

*To neutralize 200 ml sample.

(b) Acceptable limits for solids when tested according to the following.

- (1) Organic (ITP T 26)..... 0.02% max.
- (2) Inorganic (ITP T 26)..... 0.30% max.
- (3) Sulfate (SO₄) (ASTM D 516-82) 0.05% max.
- (4) Chloride (ASTM D 512) 0.06% max.

(c) The following tests shall be performed on the water sample and on deionized water. The same cement and sand shall be used for both tests.

- (1) Unsoundness (ASTM C 151).
- (2) Initial and Final Set Time (ASTM C 266).
- (3) Strength (ASTM C 109).

The test results for the water sample shall not deviate from the test results for the deionized water, except as allowed by the precision in the test method.

OPTION 2. Water shall meet the requirements ASTM C 1602 Tables 1 and 2 as outlined in Sections 5.1, 5.2, and 5.4.”

Revise Note 2/ in Article 1003.01(b) of the Standard Specifications to read:

“2/ Applies only to sand. Sand exceeding the colorimetric test standard of 11 (Illinois Modified AASHTO T 21) will be checked for mortar making properties according to Illinois Modified ASTM C 87 and shall develop a compressive strength at the age of 14 days when using Type I, IL, or II cement of not less than 95 percent of the comparable standard.

Revise the second sentence of Article 1003.02(e)(1) of the Standard Specifications to read:

“The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater.”

Revise the first sentence of the second paragraph of Article 1003.02(e)(3) of the Standard Specifications to read:

“The ASTM C 1293 test shall be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.80 percent or greater.”

Revise the second sentence of Article 1004.02(g)(1) of the Standard Specifications to read:

“The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater.”

Add the following Section to the Standard Specifications.

“SECTION 1014. FIBERS FOR CONCRETE

1014.01 General. Fibers used in concrete shall be Type II or Type III (polyolefin or carbon) according to ASTM C 1116. The testing required for Type II fibers or Type III polyolefin fibers shall be performed by an independent lab a minimum of once every five years, and the test results provided to the Department. Manufacturers of Type III carbon fibers shall provide materials certification documentation not more than 6 years old a minimum of once every 5 years to the Department. The Department will maintain a qualified product list. The method of inclusion of fibers into concrete mixtures shall be according to the manufacturer’s specifications.

At the discretion of the Engineer, the concrete mixture shall be evaluated in a field demonstration for fiber clumping, ease of placement, and ease of finishing. The field demonstration shall consist of a minimum 2 cu yd (1.5 cu m) trial batch placed in a 12 ft x 12 ft (3.6 m x 3.6 m) slab.

1014.02 Concrete Gutter, Curb, Median and Paved Ditch. Fibers shall be Type III. Fibers shall have a minimum length of 1/2 in. (13 mm) and a maximum length of 0.75 in. (19 mm). The maximum dosage rate in the concrete mixture shall not exceed 1.5 lb/cu yd (0.9 kg/cu m). The minimum dosage rate shall be per the manufacturer’s recommendation.

1014.03 Concrete Inlay or Overlay. Fibers shall be Type III. Fibers shall have a minimum length of 1.0 in. (25 mm), a maximum length of 2 1/2 in. (63 mm), and a maximum aspect ratio (length divided by the equivalent diameter of the fiber) of 150. The maximum dosage rate shall not exceed 5.0 lb/cu yd (3.0 kg/cu m). The minimum dosage rate shall be per the manufacturer's recommendation.

1014.04 Bridge Deck Fly Ash, Ground Granulated Blast Furnace (GGBF) Slag, High Reactivity Metakaolin, or Microsilica (Silica Fume) Concrete Overlay. Fibers shall be Type III. The dosage rate shall be a minimum of 3.0 lb/cu yd (1.8 kg/cu m), unless a field demonstration according to Article 1014.01 indicates that a lower dosage rate is necessary. Based on the results of the field demonstration, the Department has the option to reduce the dosage rate of fibers, but the dosage will not be reduced to less than 2.0 lb / cu yd (1.2 kg/cu m).

1014.05 Bridge Deck Latex Concrete Overlay. Fibers shall be Type II or III. Fibers shall have a minimum length of 0.75 in. (19 mm), a maximum length of 1.75 in. (45 mm), and an aspect ratio (length divided by the equivalent diameter of the fiber) of between 70 and 100. The dosage rate shall be a minimum of 3.0 lb/cu yd (1.8 kg/cu m), unless a field demonstration according to Article 1014.01 indicates that a lower dosage rate is necessary. Based on the results of the field demonstration, the Department has the option to reduce the dosage rate of fibers, but the dosage will not be reduced to less than 2.0 lb/cu yd (1.2 kg/cu m)."

Add the following Section to the Standard Specifications:

"SECTION 1015. HIGH PERFORMANCE SHOTCRETE

1015.01 Packaged Shotcrete With Aggregate. The packaged shotcrete with aggregate shall be a pre-blended dry combination of materials for the wet-mix shotcrete method according to ASTM C 1480, Type FA or CA, Grade FR, Class I. The fibers shall be Type III according to Article 1014.01. The cement and finely divided minerals in the mixture shall be a minimum 6.65 cwt/cu yd (395 kg/cu m), and the portland cement shall not be below 4.70 cwt/cu yd (279 kg/cu m). Microsilica is required in the mixture and shall be a minimum of 5 percent by weight (mass) of cementitious material, and a maximum of 10 percent. Strength requirements shall be according to ASTM C 1480 except that the strength at 28 days shall be at least 4000 psi (27,500 kPa). Strength testing shall be according to ASTM C 1140. The air content as shot shall be 4.0 – 8.0 percent when tested according to AASHTO T 152, and the coarse aggregate shall be a maximum size of 1/2 in. (12.5 mm).

The packaged shotcrete shall have a water soluble chloride ion content of less than 0.15% by weight of cementitious material when tested according to ASTM C 1218 or AASHTO T 260.

The testing according to ASTM C 1480, ASTM C 1140, AASHTO 152, and ASTM C 1218 or AASHTO T 260 shall be performed by an independent lab a minimum of once every 5 years, and the test results shall be provided to the Department. The Department will maintain a qualified product list. Batching and mixing shall be per the manufacturer's recommendations.

1015.02 Packaged Shotcrete Without Aggregate. The packaged shotcrete that does not include pre-blended aggregate shall be according to Article 1015.01, except the added aggregate shall be according to Articles 1003.02 and 1004.02. The aggregate gradation shall be according to the manufacturer. The Department will maintain a qualified product list. Batching and mixing shall be per the manufacturer's recommendations."

Revise Section 1017 of the Standard Specifications to read:

“SECTION 1017. PACKAGED, DRY, COMBINED MATERIALS FOR MORTAR AND CONCRETE

1017.01 Mortar. The mortar shall be high-strength according to ASTM C 387 and shall have a minimum 80.0 percent relative dynamic modulus of elasticity when tested according to AASHTO T 161. For prestressed concrete applications, the mortar shall have a water-soluble chloride ion content of less than 0.06 percent by weight of cementitious material when tested according to ASTM C 1218 or AASHTO T 260; and for non-prestressed concrete applications, the water soluble chloride content shall be less than 0.15 percent by weight of cementitious material. The testing according to ASTM C 387, AASHTO T 161, and either ASTM C 1218 or AASHTO T 260 shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. The Department will maintain a qualified product list. Mixing of the high-strength mortar shall be according to the manufacturer’s specifications.

1017.02 Concrete. The materials, testing, and preparation of aggregate for the “high slump” packaged concrete mixture shall be according to ASTM C 387. The mixture shall be air entrained, the slump shall be 5-10 in. (125-250 mm), and the coarse aggregate shall be a maximum size of 1/2 in. (12.5 mm). Strength requirements shall be according to ASTM C 387 except that the strength at 28 days shall be at least 4000 psi (27,500 kPa). The “high slump” packaged concrete mixture shall have a water soluble chloride ion content of less than 0.15% by weight of cementitious material when tested according to ASTM C 1218 or AASHTO T 260. The testing according to ASTM C 387, and either ASTM C 1218 or AASHTO T 260 shall be performed by an independent lab a minimum of once every 5 years, and the test results shall be provided to the Department. The Department will maintain a qualified product list. Mixing shall be per the manufacturer’s recommendations.

1017.02 Self-Consolidating Concrete. The materials, testing, and preparation of aggregate for the “self-consolidating concrete” packaged concrete mixture shall be according to ASTM C 387. The mixture shall be air entrained, it should be uniformly graded, and the coarse aggregate shall be a maximum size of 1/2 in. (12.5 mm). Strength requirements shall be according to ASTM C 387 except that the strength at 28 days shall be at least 4000 psi (27,500 Pa). Slump flow range shall be 22 in. (550 mm) minimum to 28 in. (700 mm) maximum when tested according to AASHTO T 347. The visual stability index shall be a maximum of 1 when tested according to AASHTO T 351. At the option of the manufacturer, either the J-Ring value shall be a maximum of 2 in. (50 mm) when tested according to AASHTO T 347 or the L-Box blocking ratio shall be a minimum of 80 percent when tested according AASHTO T 419. The hardened visual stability index shall be a maximum of 1 when tested according to AASHTO R 81.

The “self -consolidating concrete” packaged concrete mixture shall have a water soluble chloride ion content of less than 0.15 percent by weight of cementitious material when tested according to ASTM C 1218 or AASHTO T 260.

The testing according to ASTM C 387, AASHTO T 347, AASHTO T 351, AASHTO T 419, AASHTO R 81, ASTM C 1218 and AASHTO T 260 shall be performed by an independent lab a minimum of once every 5 years, and the test results shall be provided to the Department. The Department will maintain a qualified product list. Mixing shall be per the manufacturer’s recommendations.”

Revise Article 1018.01 of the Standard Specifications to read:

“1018.01 Requirements. The rapid hardening mortar or concrete shall be according to ASTM C 928 and shall have successfully completed and remain current with the AASHTO Product Eval and Audit Rapid Hardening Concrete Patching Materials (RHCP) testing program. R1, R2, or R3 concrete shall be air entrained, the slump shall be 5-10 in. (125-250 mm), and the coarse aggregate shall be a maximum size of 1/2 in. (12.5 mm). For prestressed concrete applications, the mortar or concrete shall have a water-soluble chloride ion content of less than 0.06 percent by weight of cementitious material when tested according to ASTM C 1218 or AASHTO T 260; and for non-prestressed concrete applications, the water soluble chloride content shall be less than 0.15 percent by weight of cementitious material. The Department will maintain a qualified product list. Mixing of the mortar or concrete shall be according to the manufacturer’s specifications..”

Revise Article 1019.02 of the Standard Specifications to read:

“1019.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate for Controlled Low-Strength Material (CLSM)	1003.06
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(f) Admixtures (Note 1)	

Note 1. The air-entraining admixture may be in powder or liquid form. The air content produced by the admixture shall be 15-25 percent when incorporated into Mix 2 or an equivalent mixture as determined by the Department and tested according to AASHTO T 121 or AASHTO T 152. The testing according to AASHTO T 121 or AASHTO T 152 shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. The Department will maintain a qualified product list.”

Revise the third paragraph of Article 1019.04 of the Standard Specifications to read:

“The Engineer will instruct the Contractor to adjust the proportions of the mix design in the field as needed to meet the design criteria, provide adequate flowability, maintain proper solid suspension, or other criteria established by the Engineer.”

Revise Article 1019.05 of the Standard Specifications to read:

“1019.05 Department Mix Design. The Department mix design shall be Mix 1, 2, or 3 and shall be proportioned to yield approximately one cubic yard (cubic meter).

Mix 1	
Cement	50 lb (30 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2900 lb (1720 kg)
Water	50-65 gal (248-322 L)
Air Content	No air is entrained

Mix 2	
Cement	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (173-248 L)
Air Content	15-25 %

Mix 3	
Cement	40 lb (24 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (179-248 L)
Air Content	15-25 %”

Revise Article 1020.04, Table 1, Note (8) of the Standard Specifications to read:

“(8) In addition to the Type III portland cement, 100 lb/cu yd of ground granulated blast-furnace slag and 50 lb/cu yd of microsilica (silica fume) shall be used. For an air temperature greater than 85 °F, the Type III portland cement may be replaced with Type I, IL, or II portland cement.”

Revise Article 1020.04, Table 1 (Metric), Note (8) of the Standard Specifications to read:

“(8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 °C, the Type III portland cement may be replaced with Type I, IL, or II portland cement.”

Revise Note 9 of Table 1 of Article 1020.04 of the Standard Specifications to read:

“(9) The cement shall be a rapid hardening according to Article 1001.01(d). Minimum or maximum cement factor may be adjusted when approved by the Engineer.”

Revise the second paragraph of Article 1020.05(a) of the Standard Specifications to read:

“For a mix design using a portland-pozzolan cement, portland blast-furnace slag cement, portland-limestone cement, or replacing portland cement with finely divided minerals per Articles 1020.05(c) and 1020.05(d), the Contractor may submit a mix design with a

minimum portland cement content less than 400 lbs/cu yd (237 kg/cu m), but not less than 375 lbs/cu yd (222 kg/cu m), if the mix design is shown to have a minimum relative dynamic modulus of elasticity of 80 percent determined according to AASHTO T 161. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete.”

Revise the first sentence of the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

“Corrosion inhibitors and concrete admixtures shall be according to the qualified product lists.”

Delete the fourth and fifth sentences of the second paragraph of Article 1020.05(b) of the Standard Specifications.

Revise Article 1020.05(b)(5) of the Standard Specifications to read:

“(5) For Class PP-4 concrete, a high range water-reducing admixture, retarder, and/or hydration stabilizer may be used in addition to the air-entraining admixture. The Contractor also has the option to use a water-reducing admixture with the high range water-reducing admixture. An accelerator shall not be used. A mobile portland cement concrete plant shall be used to produce the patching mixture.

For PP-5 concrete, a non-chloride accelerator, high range water-reducing admixture, retarder, hydration stabilizer, and/or air-entraining admixture may be used. The accelerator, high range water-reducing admixture, retarder, hydration stabilizer, and/or air-entraining admixture shall be per the Contractor’s recommendation and dosage. The qualified product list of concrete admixtures shall not apply. A mobile portland cement concrete plant shall be used to produce the patching mixture.”

Revise second paragraph of Article 1020.05(b)(10) of the Standard Specifications to read:

“When calcium nitrite is used, it shall be added at the rate of 4 gal/cu yd (20 L/cu m) and shall be added to the mix immediately after all compatible admixtures have been introduced to the batch. Other corrosion inhibitors shall be added per the manufacturer’s specifications.”

Delete the third paragraph of Article 1020.05(b)(10) of the Standard Specifications.

Revise Article 1020.15(b)(1)c. of the Standard Specifications to read:

“c. The minimum portland cement content in the mixture shall be 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone addition exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). For a drilled shaft, foundation, footing, or substructure, the minimum portland cement may be reduced to as low as 330 lbs/cu yd (196 kg/cu m) if the concrete has adequate freeze/thaw durability. The Contractor shall provide freeze/thaw test results according to AASHTO T 161, and the relative dynamic modulus of elasticity of the mix design shall be a minimum of 80 percent. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. Freeze/thaw testing will not be required

for concrete that will not be exposed to freezing and thawing conditions as determined by the Engineer.”

Revise Article 1021.01 of the Standard Specifications to read:

“**1021.01 General.** Admixtures shall be furnished in liquid or powder form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer, the date of manufacture, and trade name of the material. Containers shall be readily identifiable as to manufacturer, the date of manufacture, and trade name of the material they contain.

Concrete admixtures shall be on one of the Department's qualified product lists. Unless otherwise noted, admixtures shall have successfully completed and remain current with the AASHTO Product Eval and Audit Concrete Admixture (CADD) testing program. For admixture submittals to the Department; the product brand name, manufacturer name, admixture type or types, an electronic link to the product's technical data sheet, and the NTPEP testing number which contains an electronic link to all test data shall be provided. In addition, a letter shall be submitted certifying that no changes have been made in the formulation of the material since the most current round of tests conducted by AASHTO Product Eval and Audit. After 28 days of testing by AASHTO Product Eval and Audit, air-entraining admixtures may be provisionally approved and used on Departmental projects. For all other admixtures, unless otherwise noted, the time period after which provisionally approved status may be earned is 6 months.

The manufacturer shall include the following in the submittal to the AASHTO Product Eval and Audit CADD testing program: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range established by the manufacturer shall be according to AASHTO M 194. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, 1021.07, and 1021.08, the pH allowable manufacturing range established by the manufacturer shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass) as determined by an appropriate test method. To verify the test result, the Department will use Illinois Modified AASHTO T 260, Procedure A, Method 1.

Prior to final approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to Illinois Modified AASHTO T 161. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.”

Revise Article 1021.03 of the Standard Specifications to read:

“**1021.03 Retarding and Water-Reducing Admixtures.** The admixture shall be according to the following.

- (a) Retarding admixtures shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) Water-reducing admixtures shall be according to AASHTO M 194, Type A.
- (c) High range water-reducing admixtures shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).”

Revise Article 1021.05 of the Standard Specifications to read:

“**1021.05 Self-Consolidating Admixtures.** Self-consolidating admixture systems shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

High range water-reducing admixtures shall be according to AASHTO M 194, Type F.

Viscosity modifying admixtures shall be according to AASHTO M 194, Type S (specific performance).”

Revise Article 1021.06 of the Standard Specifications to read:

“**1021.06 Rheology-Controlling Admixture.** Rheology-controlling admixtures shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. Rheology-controlling admixtures shall be according to AASHTO M 194, Type S (specific performance).”

Revise Article 1021.07 of the Standard Specifications to read:

“**1021.07 Corrosion Inhibitor.** The corrosion inhibitor shall be according to one of the following.

- (a) Calcium Nitrite. Corrosion inhibitors shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution and shall comply with either the requirements of AASHTO M 194, Type C (accelerating) or the requirements of ASTM C 1582. The corrosion inhibiting performance requirements of ASTM C 1582 shall not apply.

(b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582.

For submittals requiring testing according to ASTM M 194, Type C (accelerating), the admixture shall meet the requirements of the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01.

For submittals requiring testing according to ASTM C 1582, a report prepared by an independent laboratory accredited by AASHTO re:source for portland cement concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, ASTM G 109 test information specified in ASTM C 1582 is not required to be from an independent accredited lab. All other information in ASTM C 1582 shall be from an independent accredited lab. Test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall instead be submitted directly to the Department.”

Add Article 1021.08 of the Standard Specifications as follows:

“**1021.08 Other Specific Performance Admixtures.** Other specific performance admixtures shall, at a minimum, be according to AASHTO M 194, Type S (specific performance). The Department also reserves the right to require other testing, as determined by the Engineer, to show evidence of specific performance characteristics.

Initial testing according to AASHTO M 194 may be conducted under the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01, or by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. In either case, test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall also be submitted directly to the Department. The independent accredited lab report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications.”

Add Article 1021.09 of the Standard Specifications as follows:

“**1021.09 Latex Admixtures.** The latex admixture shall be a uniform, homogeneous, non-toxic, film-forming, polymeric emulsion in water to which all stabilizers have been added at the point of manufacture. The latex admixture shall not contain any chlorides and shall contain 46-49 percent solids.

In lieu of meeting the requirements of Article 1021.01, the Contractor shall submit a manufacturer's certification that the latex emulsion meets the requirements of FHWA Research Report RD-78-35, Chapter VI. The certificate shall include the date of manufacture of the latex admixture, batch or lot number, quantity represented, manufacturer's name, and the location of the manufacturing plant. The latex emulsion shall be sampled and tested in accordance with RD-78-35, Chapter VII, Certification Program.

The latex admixture shall be packaged and stored in containers and storage facilities which will protect the material from freezing and from temperatures above 85°F (30°C). Additionally, the material shall not be stored in direct sunlight and shall be shaded when stored outside of buildings during moderate temperatures.”

Revise Article 1024.01 of the Standard Specifications to read:

“1024.01 Requirements for Grout. The grout shall be proportioned by dry volume, thoroughly mixed, and shall have a minimum temperature of 50 °F (10 °C). Water shall not exceed the minimum needed for placement and finishing.

Materials for the grout shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.02
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(f) Concrete Admixtures	1021”

Revise Note 1 of Article 1024.02 of the Standard Specifications to read:

“Note 1. Nonshrink grout shall be according to ASTM C 1107.

For prestressed concrete applications, the nonshrink grout shall have a water soluble chloride ion content of less than 0.06 percent by weight of cementitious material when tested according to ASTM C 1218 or AASHTO T 260; and for non-prestressed concrete applications, the water soluble chloride ion content shall be less than 0.15 percent by weight of cementitious material. The testing according to ASTM 1107, and either ASTM C 1218 or AASHTO T 260 shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. The Department will maintain a qualified product list. Mixing of the nonshrink grout shall be according to the manufacturer’s specifications.”

Revise Article 1029.02 of the Standard Specifications to read:

“ **1029.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement.....	1001
(b) Fly Ash	1010
(c) Ground Granulated Blast Furnace (GGBF) Slag	1010
(d) Water.....	1002
(e) Fine Aggregate.....	1003
(f) Concrete Admixtures	1021
(g) Foaming Agent (Note 1)	

Note 1. The manufacturer shall submit infrared spectrophotometer trace and test results indicating the foaming agent meets the requirements of ASTM C 869 in order to be on the Department’s qualified product list. Submitted data/results shall not be more than five years old.”

Revise the second paragraph of Article 1103.03(a)(4) the Standard Specifications to read:

“The dispenser system shall provide a visual indication that the liquid admixture is actually entering the batch, such as via a transparent or translucent section of tubing or by independent check with an integrated secondary metering device. If approved by the Engineer, an alternate indicator may be used for admixtures dosed at rates of 25 oz/cwt (1630 mL/100 kg) or greater, such as accelerating admixtures, corrosion inhibitors, and viscosity modifying admixtures.”

Revise Article 1103.04 of the Standard Specifications to read:

“ **1103.04 Mobile Portland Cement Concrete Plants.** The mobile concrete plant shall be according to AASHTO M 241 and the Bureau of Materials Policy Memorandum “Approval of Volumetric Mobile Mixers for Concrete”. The mixer shall be capable of carrying sufficient unmixed materials to produce not less than 6 cu yd (4.6 cu m) of concrete.”

Revise the first two sections of Check Sheet #11 “Subsealing of Concrete Pavements” of the Recurring Special Provisions to read:

“Description. This work shall consist of filling voids beneath rigid and composite pavements with cement grout.

Materials. Materials shall be according to the following Articles/Sections of the Standard Specifications:

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fly Ash	1010
(d) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(e) Admixtures	1021
(f) Packaged Rapid Hardening Mortar or Concrete	1018”

Revise the Materials section of Check Sheet #28 “Portland Cement Concrete Inlay or Overlay” of the Recurring Special Provisions to read:

“Materials. Materials shall be according to the following Articles/Sections of the Standard Specifications.

Item	Article/Section
(a) Portland Cement Concrete (Note 1)	1020
(b) Fibers for Concrete.....	1014
(c) Protective Coat.....	1023.01

Note 1. Class PV concrete shall be used, except the cement factor for central mixed concrete shall be 6.05 cwt/cu yd (360 kg/cu m). A cement factor reduction according to Article 1020.05(b)(8) of the Standard Specifications will be permitted. CA 5 shall not be used and CA 7 may only be used for overlays that are a minimum of 4.5 in. (113 mm) thick. The Class PV concrete shall have a minimum flexural strength of 550 psi (3800 kPa) or a minimum compressive strength of 3000 psi (20,700 kPa) at 14 days.”

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

“(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

- (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
- (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days.”

Revise Article 107.40(c) of the Standard Specifications to read:

“(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

- (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

- (2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor’s yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

- (3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13.”

Revise Article 108.04(b) of the Standard Specifications to read:

“(b) No working day will be charged under the following conditions.

- (1) When adverse weather prevents work on the controlling item.
- (2) When job conditions due to recent weather prevent work on the controlling item.
- (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
- (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
- (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (6) When any condition over which the Contractor has no control prevents work on the controlling item.”

Revise Article 109.09(f) of the Standard Specifications to read:

“(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited.”

Add the following to Section 109 of the Standard Specifications.

“109.13 Payment for Contract Delay. Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

- (a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.
- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
 - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to \$5,000,000	One Project Superintendent
Over \$ 5,000,000 - up to \$25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over \$25,000,000 - up to \$50,000,000	One Project Manager, One Project Superintendent, One Engineer, and One Clerk
Over \$50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

EROSION CONTROL BLANKET (BDE)

Effective: August 1, 2025

Revise Article 251.02 of the Standard Specifications to read:

"251.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Compost	1081.05(b)
(b) Mulch	1081.06(a)
(c) Chemical Mulch Binder	1081.06(a)(3)
(d) Chemical Compost Binder	1081.06(a)(4)
(e) Erosion Control Blanket	1081.10(a)
(f) Wildlife Friendly Erosion Control Blanket	1081.10(b)
(g) Wire Staples	1081.10(c)
(h) Wood Stakes	1081.10(d)
(i) Turf Reinforcement Mat	1081.10(e)"

Revise the first and second sentences of Article 251.04 of the Standard Specifications to read:

"251.04 Erosion Control Blanket. All erosion control blanket materials shall be placed on the areas specified within 24 hours of seed placement."

Revise the second paragraph of Article 251.04 of the Standard Specifications to read:

"After the area has been properly shaped, fertilized (when applicable), and seeded, the blanket shall be laid out flat, evenly, and smoothly, without stretching the material. The erosion control blanket shall be placed according to the manufacture's recommendations."

Revise the second sentence of Article 251.06(b) of the Standard Specifications to read:

"Erosion control blanket, wildlife friendly erosion control blanket, and turf reinforcement mat will be measured for payment in square yards (square meters)."

Revise Article 251.07 of the Standard Specifications to read:

“251.07 Basis of Payment. This work will be paid for at the contract unit price per acre (hectare) for MULCH, of the method specified; and at the contract unit price per square yard (square meter) for EROSION CONTROL BLANKET, WILDLIFE FRIENDLY EROSION CONTROL BLANKET, or TURF REINFORCEMENT MAT.”

Revise first sentence of Article 280.04(h) of the Standard Specifications to read:

“This system consists of temporarily installing erosion control blanket or wildlife friendly erosion control blanket over areas that are to be reworked during a later construction phase.”

Revise Article 280.08(g) of the Standard Specifications to read:

“(g) Temporary Erosion Control Blanket. Temporary erosion control blanket will be paid for at the contract unit price per square yard (square meter) for TEMPORARY EROSION CONTROL BLANKET or TEMPORARY WILDLIFE FRIENDLY EROSION CONTROL BLANKET.

The work of removing, storing, and reinstalling the blanket over areas to be reworked more than once will not be paid for separately but shall be included in the cost of the temporary erosion control blanket or temporary wildlife friendly erosion control blanket.”

Revise Article 1081.10 of the Standard Specifications to read:

“1081.10 Erosion Control Blankets. The manufacturer shall furnish a certificate with each shipment stating the amount of product furnished and that the material complies with these requirements.

(a) Erosion Control Blanket. Erosion control blanket shall be covered on top and bottom, also known as double net, with a 100 percent biodegradable woven, natural fiber or jute net meeting the following.

Material	Minimum Value
Excelsior	80%
Straw	100%
Coconut or Coir	100% Coconut or Coir
Straw/Coconut or Coir	70% Straw / 30% Coconut or Coir

(b) Wildlife Friendly Erosion Control Blanket. Wildlife friendly erosion control blanket shall be according to Article 1081.10(a) except the netting shall be loose weave, also known as leno weave or gauze weave, with a moveable joint.

(c) Wire Staples. Staples shall be made from No. 11 gauge or heavier uncoated black carbon steel wire, a minimum of 1 in. (25 mm) wide at the top and a minimum overall length of 8 in. (200 mm).

(d) Wood Stakes. Hardwood blanket anchors shall be nominally 7 in. (180 mm) long from neck of hook to tip of anchor. The anchor shall have a minimum 1/2 in. (13 mm) curving hook to hold the blanket in place.

- (e) Turf Reinforcement Mat (TRM). The TRM shall be comprised of non-degradable, ultraviolet stabilized synthetic fibers, filaments, netting, and/or wire mesh processed into a three-dimensional reinforced mat. The mats may include degradable material to assist with vegetation establishment. Soil filled mats will not be allowed.

The TRM shall meet the following physical and performance properties:

Property	Value	Test Method
Tensile Strength, lb/ft (kN/m)	150 (2.19) min.	ASTM D 6818
UV Stability, (% Tensile Retained)	80 min.	ASTM D 4355 (1000 Hour Exposure)
Resiliency, (% Thickness Retained)	80 min.	ASTM D 6524
Allowable Shear Stress, lb/sq ft (Pa) ^{1/}	8 (384)	ECTC approved test method and independent laboratory

1/ Minimum shear stress the TRM (fully vegetated) can sustain without physical damage or excess erosion (> 1/2 in. (13 mm) soil loss) during a 30 minute flow event in large scale testing.

For TRMs containing degradable components, all property values shall be obtained on the non-degradable portion of the matting alone.”

ILLINOIS WORKS APPRENTICESHIP INITIATIVE – STATE FUNDED CONTRACTS (BDE)

Effective: June 2, 2021

Revised: April 2, 2024

Illinois Works Jobs Program Act (30 ILCS 559/20-1 et seq.). For contracts having an awarded contract value of \$500,000 or more, the Contractor shall comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules. The goal of the Illinois Apprenticeship Works Initiative is that apprentices will perform either 10% of the total labor hours actually worked in each prevailing wage classification or 10% of the estimated labor hours in each prevailing wage classification, whichever is less. Of this goal, at least 50% of the labor hours of each prevailing wage classification performed by apprentices shall be performed by graduates of the Illinois Works Pre-Apprenticeship Program, the Illinois Climate Works Pre-Apprenticeship Program, or the Highway Construction Careers Training Program.

The Contractor may seek from the Department of Commerce and Economic Opportunity (DCEO) a waiver or reduction of this goal in certain circumstances pursuant to 30 ILCS 559/20-20(b). The Contractor shall ensure compliance during the term of the contract and will be required to report on and certify its compliance. An apprentice use plan, apprentice hours, and a compliance certification shall be submitted to the Engineer on forms provided by the Department and/or DCEO.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2024

Revised: April 1, 2026

Revise the first paragraph of Article 669.04 of the Standard Specifications to read:

“669.04 Regulated Substances Monitoring. Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities. The excavated soil and groundwater within the work areas shall be managed as either uncontaminated soil, hazardous waste, special waste, or non-special waste.

As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 “Regulated Substances Monitoring Daily Record (RSMDR)”.

Revise the first two sentences of the nineteenth paragraph of Article 669.05 of the Standard Specifications to read:

“The Contractor shall coordinate waste disposal approvals with the disposal facility and provide the specific analytical testing requirements of that facility. The Contractor shall make all arrangements for collection, transportation, and analysis of landfill acceptance testing.”

Revise the last paragraph of Article 669.05 of the Standard Specifications to read:

“The Contractor shall select a permitted landfill facility or CCDD/USFO facility meeting the requirements of 35 Ill. Admin. Code Parts 810-814 or Part 1100, respectively. The Department will review and approve or reject the facility proposed by the Contractor based upon information provided in BDE 2730. The Contractor shall verify whether the selected facility is compliant with those applicable standards as mandated by their permit and whether the facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected facility shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.”

Revise the first paragraph of Article 669.07 of the Standard Specifications to read:

“669.07 Temporary Staging. Soil classified according to Articles 669.05(a)(2), (b)(1), or (c) may be temporarily staged at the Contractor's option. All other soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) shall be managed and disposed of without temporary staging to the greatest extent practicable. If circumstances beyond the Contractor's control require temporary staging of these latter materials, the Contractor shall request approval from the Engineer in writing.

Topsoil for re-use as final cover which has been field screened and found not to exhibit PID readings over daily background readings as documented on the BDE 2732, visual staining or odors, and is classified according to Articles 669.05(a)(2), (a)(3), (a)(4), (b)(1), or (c) may be temporarily staged at the Contractor's option.”

Add the following paragraph after the fourth paragraph of Article 669.10 of the Standard Specifications.

“Regulated substances monitoring will be measured for payment per calendar day, where 4 or more hours of monitoring activities is defined as 1.0 calendar day and less than 4 hours of monitoring activities is defined as 0.5 calendar day.”

Revise the second paragraph of Article 669.11 of the Standard Specification to read:

“Regulated substances monitoring, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day for REGULATED SUBSTANCES MONITORING. In no case will more than 1.0 calendar day be paid on a given calendar day.”

Add the following paragraph after the sixth paragraph of Article 669.11 of the Standard Specifications.

“The sampling and testing of effluent water derived from dewatering discharges for priority pollutants volatile organic compounds (VOCs), priority pollutants semi-volatile organic compounds (SVOCs), or priority pollutants metals, will be paid for at the contract unit price per each for VOCS GROUNDWATER ANALYSIS using EPA Method 8260B, SVOCs GROUNDWATER ANALYSIS using EPA Method 8270C, or RCRA METALS GROUNDWATER ANALYSIS using EPA Methods 6010B and 7471A. This price shall include transporting the sample from the job site to the laboratory.”

Revise the first sentence of the eight paragraph of Article 669.11 of the Standard Specifications to read:

“Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) to be managed and disposed of, if required and approved by the Engineer, will be paid according to Article 109.04.”

SIGN PANELS AND APPURTENANCES (BDE)

Effective: January 1, 2025

Revised: January 1, 2026

Add Article 720.02(c) of the Standard Specifications to read:

“(c) Aluminum Epoxy Mastic1008.03”

Revise the second and third paragraphs of Article 720.02 of the Standard Specifications to read:

“The sign mounting support channel shall be manufactured from steel or aluminum and shall be according to Standard 720001.

Steel support channels shall be according to ASTM A 1011 (A 1011M), ASTM A 635 (A 635M), ASTM A 568 (A 568M), or ASTM A 684 (A 684M), and shall be galvanized. Galvanizing shall be according to ASTM A 653 (A 653M) when galvanized before fabrication, and AASHTO M 111 (M 111M) when galvanized after fabrication. Field or post fabricated drilled holes shall be spot painted with one coat of aluminum epoxy mastic paint prior to installation.”

Revise the fifth paragraph of Article 720.02 of the Standard Specifications to read:

“The stainless steel banding for mounting signs or sign support channels to light or signal standards shall be according to ASTM A 240 (A 240M) Type 302 stainless steel.”

Revise the first sentence of the tenth paragraph of Article 720.03 of the Standard Specifications to read:

“The backs of all sign panels shall be marked in a manner designed to last as long as the sign face material, in letters and numerals at least 3/8 in. (9.5 mm) but no more than 3/4 in. (19 mm) in height with the month and year of manufacture, the name of the sign manufacturer, the name of the sign sheeting manufacturer, the method of manufacture (“screened”, “EC film”, “direct applied”, or “digital print”), and the initials IDOT.”

Revise the first sentence of the fourth paragraph of Article 1091.03(a)(10) of the Standard Specifications to read:

“Transparent colors screened, or transparent acrylic electronic cutting films, or digital printing on white sheeting, shall meet the minimum initial coefficient of retroreflection values of the 0.2 degree observation angle, -4.0 degree entrance angle values as listed in the previous tables for the color being applied.”

Add the following after the fourth paragraph of Article 1091.03(a)(10) of the Standard Specifications:

“Digitally printed signs shall be produced using digital print technologies and ink systems, products and processes that comply with the sheeting manufacturer’s recommendation. The digitally printed signs shall be fabricated with a full sign protective overlay film designed to provide a smooth surface needed for retroreflectivity, and to protect the sign from fading and UV degradation. The overlamine shall comply with the sheeting manufacturer’s recommendations to ensure proper adhesion and transparency.”

Add the following after the third paragraph of Article 1106.01 of the Standard Specifications:

“Digitally printed signs may omit protective overlay film.”

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

“109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.
 The Contractor shall report all payments made to the following parties:

- (a) first tier subcontractors;
- (b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;
- (c) material suppliers or trucking firms that are part of the Contractor’s submitted DBE utilization plan.

The report shall be made through the Department’s on-line subcontractor payment reporting system within 21 days of making the payment.”

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017

Revised: April 1, 2019

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

“This mobilization payment shall be made at least seven days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor’s work.

Value of Subcontract Reported on Form BC 260A	Mobilization Percentage
Less than \$10,000	25%
\$10,000 to less than \$20,000	20%
\$20,000 to less than \$40,000	18%
\$40,000 to less than \$60,000	16%
\$60,000 to less than \$80,000	14%
\$80,000 to less than \$100,000	12%
\$100,000 to less than \$250,000	10%
\$250,000 to less than \$500,000	9%
\$500,000 to \$750,000	8%
Over \$750,000	7%”

SUBMISSION OF BIDDERS LIST INFORMATION (BDE)

Effective: January 2, 2025

Revised: March 2, 2025

In accordance with 49 CFR 26.11(c) all DBE and non-DBEs who bid as prime contractors and subcontractors shall provide bidders list information, including all DBE and non-DBE firms from whom the bidder has received a quote or bid to work as a subcontractor, whether or not the bidder has relied upon that bid in placing its bid as the prime contractor.

The bidders list information shall be submitted with the bid using the link provided within the “Integrated Contractor Exchange (iCX)” application of the Department’s “EBids System”.

SUBMISSION OF PAYROLL RECORDS – STATE CONTRACT (BDE)

Effective: April 1, 2021

Revised: April 1, 2026

Revise Item 3 of Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

- “3. Submission of Payroll Records. The Contractor and each subcontractor shall, no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month to the Illinois Department of Labor (IDOL) through the Certified Transcript of Payroll Portal in compliance with the State Prevailing Wage Act (820 ILCS 130). The portal can be found on the IDOL website at <https://labor.illinois.gov>. Payrolls shall be submitted in the format prescribed by the IDOL.

In addition to filing certified payroll(s) with the IDOL, the Contractor and each subcontractor shall certify and submit payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers shall not be included on weekly submittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee’s social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted. The submittals shall be made using LCPTracker Pro software. The software is web-based and can be accessed at <https://lcptracker.com/>. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option (“No Work”, “Suspended”, or “Complete”) selected.”

SURVEYING SERVICES (BDE)

Effective: April 1, 2025

Delete the fourth paragraph of Article 667.04 of the Standard Specifications.

Delete Section 668 of the Standard Specifications.

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021

Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

“The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations.”

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Revised: January 1, 2026

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports1106.02”

Revise Article 701.03(p) of the Standard Specifications to read:

“(p) Detectable Pedestrian Channelizing Barricades 1106.02(m)”

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

“For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer’s specifications.”

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

“ **701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer’s self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device.”

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

“ **1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices shall be MASH compliant.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices shall be MASH compliant.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as sign supports, speed feedback displays, arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH compliant is available, an NCHRP 350 compliant device may be used, even if manufactured after December 31, 2019.”

Revise the first paragraph of Section 1106.02(a) of the Standard Specifications to read:

“(a) Lights. Lights shall meet the requirements of Chapter 13 of the “Equipment and Materials Standards of the Institute of Transportation Engineers,” 1998, Institute of Transportation Engineers, and shall be visible on a clear night from a distance of 3000 ft (900 m). Lights are classified as follows.”

Revise Articles 1106.02(g), 1106.02(k), 1106.02(l), and 1106.02(m) of the Standard Specifications to read:

“(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis.

(m) Detectable Pedestrian Channelizing Barricades. The top panel or handrail shall be continuous and there should be at least a 2 in. (50 mm) gap between the hand trailing edge and its support. When visible to vehicular traffic, the top rail shall have alternating white and orange retroreflective stripes sloping at 45 degrees. The bottom panel shall be continuous and have alternating white and orange retroreflective stripes sloping at 45 degrees. Barricade stripes shall be 6 in. (150 mm) in width. The predominant color for other barricade components shall be white, orange, or silver.”

REVISIONS TO THE ILLINOIS PREVAILING WAGE RATES

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at <http://www.state.il.us/agency/idol/> or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.