

2

March 7, 2025 Letting

Notice to Bidders, Specifications and Proposal



**Illinois Department
of Transportation**

**Contract No. 46946
SALINE County
Section SAHARA WOOD O&C
Route PARK ROADS
District 9 Construction Funds**

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)



NOTICE TO BIDDERS

- 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. March 7, 2025 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. 46946
SALINE County
Section SAHARA WOOD O&C
Route PARK ROADS
District 9 Construction Funds**

Oil and chip, drainage and other improvements to the roads, Carrier Mills Township Road and parking lots near and within Sahara Woods State Fish and Wildlife Area.

- 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

Omer Osman,
Secretary

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2025

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 1-1-25)

SUPPLEMENTAL SPECIFICATIONS

| <u>Std. Spec. Sec.</u> | <u>Page No.</u> |
|---|-----------------|
| 202 Earth and Rock Excavation | 1 |
| 204 Borrow and Furnished Excavation..... | 2 |
| 207 Porous Granular Embankment | 3 |
| 211 Topsoil and Compost | 4 |
| 406 Hot-Mix Asphalt Binder and Surface Course | 5 |
| 407 Hot-Mix Asphalt Pavement (Full-Depth) | 7 |
| 420 Portland Cement Concrete Pavement | 8 |
| 502 Excavation for Structures | 9 |
| 509 Metal Railings | 10 |
| 540 Box Culverts | 11 |
| 542 Pipe Culverts | 31 |
| 550 Storm Sewers | 40 |
| 586 Granular Backfill for Structures | 47 |
| 630 Steel Plate Beam Guardrail | 48 |
| 632 Guardrail and Cable Road Guard Removal | 49 |
| 644 High Tension Cable Median Barrier | 50 |
| 665 Woven Wire Fence | 51 |
| 701 Work Zone Traffic Control and Protection | 52 |
| 781 Raised Reflective Pavement Markers | 54 |
| 782 Reflectors | 55 |
| 801 Electrical Requirements | 57 |
| 821 Roadway Luminaires | 60 |
| 1003 Fine Aggregates | 61 |
| 1004 Coarse Aggregates | 62 |
| 1010 Finely Divided Minerals | 63 |
| 1020 Portland Cement Concrete | 64 |
| 1030 Hot-Mix Asphalt | 67 |
| 1040 Drain Pipe, Tile, and Wall Drain | 68 |
| 1061 Waterproofing Membrane System | 69 |
| 1067 Luminaire | 70 |
| 1097 Reflectors | 77 |
| 1102 Hot-Mix Asphalt Equipment | 78 |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

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 | <input type="checkbox"/> Additional State Requirements for Federal-Aid Construction Contracts | 79 |
| 2 | <input type="checkbox"/> Subletting of Contracts (Federal-Aid Contracts) | 82 |
| 3 | <input checked="" type="checkbox"/> EEO | 83 |
| 4 | <input checked="" type="checkbox"/> Specific EEO Responsibilities Non Federal-Aid Contracts | 93 |
| 5 | <input checked="" type="checkbox"/> Required Provisions - State Contracts | 98 |
| 6 | <input type="checkbox"/> Asbestos Bearing Pad Removal | 104 |
| 7 | <input type="checkbox"/> Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal | 105 |
| 8 | <input type="checkbox"/> Temporary Stream Crossings and In-Stream Work Pads | 106 |
| 9 | <input checked="" type="checkbox"/> Construction Layout Stakes | 107 |
| 10 | <input type="checkbox"/> Use of Geotextile Fabric for Railroad Crossing | 110 |
| 11 | <input type="checkbox"/> Subsealing of Concrete Pavements | 112 |
| 12 | <input type="checkbox"/> Hot-Mix Asphalt Surface Correction | 116 |
| 13 | <input type="checkbox"/> Pavement and Shoulder Resurfacing | 118 |
| 14 | <input type="checkbox"/> Patching with Hot-Mix Asphalt Overlay Removal | 119 |
| 15 | <input type="checkbox"/> Polymer Concrete | 121 |
| 16 | Reserved | 123 |
| 17 | <input type="checkbox"/> Bicycle Racks | 124 |
| 18 | <input type="checkbox"/> Temporary Portable Bridge Traffic Signals | 126 |
| 19 | <input type="checkbox"/> Nighttime Inspection of Roadway Lighting | 128 |
| 20 | <input type="checkbox"/> English Substitution of Metric Bolts | 129 |
| 21 | <input type="checkbox"/> Calcium Chloride Accelerator for Portland Cement Concrete | 130 |
| 22 | <input type="checkbox"/> Quality Control of Concrete Mixtures at the Plant | 131 |
| 23 | <input type="checkbox"/> Quality Control/Quality Assurance of Concrete Mixtures | 139 |
| 24 | Reserved | 155 |
| 25 | Reserved | 156 |
| 26 | <input type="checkbox"/> Temporary Raised Pavement Markers | 157 |
| 27 | <input type="checkbox"/> Restoring Bridge Approach Pavements Using High-Density Foam | 158 |
| 28 | <input type="checkbox"/> Portland Cement Concrete Inlay or Overlay | 161 |
| 29 | <input type="checkbox"/> Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching | 165 |
| 30 | <input type="checkbox"/> Longitudinal Joint and Crack Patching | 168 |
| 31 | <input type="checkbox"/> Concrete Mix Design – Department Provided | 170 |
| 32 | <input type="checkbox"/> Station Numbers in Pavements or Overlays | 171 |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

| <u>CHECK SHEET #</u> | | <u>PAGE NO.</u> |
|----------------------|---|-----------------|
| LRS 1 | Reserved | 173 |
| LRS 2 | <input type="checkbox"/> Furnished Excavation | 174 |
| LRS 3 | <input checked="" type="checkbox"/> Work Zone Traffic Control Surveillance | 175 |
| LRS 4 | <input checked="" type="checkbox"/> Flaggers in Work Zones | 176 |
| LRS 5 | <input type="checkbox"/> Contract Claims | 177 |
| LRS 6 | <input type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals | 178 |
| LRS 7 | <input type="checkbox"/> Bidding Requirements and Conditions for Material Proposals | 184 |
| LRS 8 | Reserved | 190 |
| LRS 9 | <input type="checkbox"/> Bituminous Surface Treatments | 191 |
| LRS 10 | Reserved | 195 |
| LRS 11 | <input type="checkbox"/> Employment Practices | 196 |
| LRS 12 | <input type="checkbox"/> Wages of Employees on Public Works | 198 |
| LRS 13 | <input type="checkbox"/> Selection of Labor | 200 |
| LRS 14 | <input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks | 201 |
| LRS 15 | <input type="checkbox"/> Partial Payments | 204 |
| LRS 16 | <input type="checkbox"/> Protests on Local Lettings | 205 |
| LRS 17 | <input type="checkbox"/> Substance Abuse Prevention Program | 206 |
| LRS 18 | <input type="checkbox"/> Multigrade Cold Mix Asphalt | 207 |
| LRS 19 | <input type="checkbox"/> Reflective Crack Control Treatment | 208 |

TABLE OF CONTENTS

| | |
|---|----|
| LOCATION OF PROJECT | 1 |
| DESCRIPTION OF PROJECT | 1 |
| EXAMINATION OF SITE | 2 |
| STATUS OF UTILITIES TO BE ADJUSTED | 2 |
| TRAFFIC CONTROL PLAN | 3 |
| TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | 5 |
| OHV PARKING LOT ACCESS | 5 |
| CONSTRUCTION COORDINATION WITH SITE OPERATIONS | 6 |
| TRENCH BACKFILL | 6 |
| AGGREGATE BASE COURSE, TYPE B | 6 |
| AGGREGATE WEDGE SHOULDER, TYPE B | 7 |
| REMOVE AND REINSTALL PARKING BLOCKS | 7 |
| PARKING LOT SEAL COAT | 8 |
| CLEARING AND GRUBBING | 9 |
| REMOVE EXISTING RIPRAP | 9 |
| PREPARATION OF BASE (SPECIAL) | 10 |
| PAVEMENT PATCHING (SPECIAL) | 10 |
| CONSTRUCTION AND MAINTENANCE SIGNS (BLR&S) | 11 |
| LOCAL QUALITY ASSURANCE/QUALITY MANAGEMENT QC/QA (BLR&S) | 11 |
| BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) | 13 |
| BITUMINOUS SURFACE TREATMENT WITH FOG SEAL (BDE) | 14 |
| CEMENT, FINELY DIVIDED MINERALS, ADMIXTURES; CONCRETE, AND MORTAR (BDE) | 20 |
| COMPENSABLE DELAY COSTS (BDE) | 30 |
| DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE) | 33 |
| ILLINOIS WORKS APPRENTICESHIP INITIATIVE – STATE FUNDED CONTRACTS (BDE) | 36 |
| PERFORMANCE GRADED ASPHALT BINDER (BDE) | 36 |
| REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE) | 41 |
| SEEDING (BDE) | 42 |
| SHORT TERM AND TEMPORARY PAVEMENT MARKINGS (BDE) | 47 |
| SIGN PANELS AND APPURTENANCES (BDE) | 50 |
| SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE) | 50 |
| SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE) | 51 |
| SUBMISSION OF BIDDERS LIST INFORMATION (BDE) | 51 |
| SUBMISSION OF PAYROLL RECORDS (BDE) | 52 |
| VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE) | 53 |
| WEEKLY DBE TRUCKING REPORTS (BDE) | 53 |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

WOOD SIGN SUPPORT (BDE)..... 53
WORK ZONE TRAFFIC CONTROL DEVICES (BDE) 54
WORKING DAYS (BDE)..... 55

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 Sahara Woods State Fish and Wildlife Area Park Roads, Section Sahara Wood O&C, Saline County, Contract No. 46946, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

Sahara Woods State Fish and Wildlife Area Park Roads
Section Sahara Wood O&C
Saline County
Contract No. 46946

LOCATION OF PROJECT

This project is located within Sahara Woods State Fish and Wildlife Area, located approximately 5 miles west of the Harrisburg in Saline County, Illinois.

DESCRIPTION OF PROJECT

The work under this contract consists of improvements to IDNR main park roads, township roads (Carrier Mills Township), and parking lots near and within Sahara Woods State Fish and Wildlife Area as shown on the plans.

IDNR Main Park Roads. Campground Road and a portion of the Haulage Road (from 1400’ north of Providence Road to Sta 559+60 near the cemetery entrance) will receive miscellaneous base repair (as needed), preparation of base, and bituminous surface treatment, A3. A portion of Campground Road will also be built up with aggregate base course before bituminous surface treatment, A3 and ditches graded as shown in the plans.

Carrier Mills Township Roads. Town Park Road from Carrier Mills Road to Tipple Lane; Tipple Lane from Town Park Road to Providence Road; Providence Road from 1000’ west of Haulage Road to Tipple Lane; and Haulage Road from Providence Road to 1400’ north will receive miscellaneous base repair (as needed), pavement patching (special) (at locations shown in the plans), preparation of base, and bituminous surface treatment, A1.

Parking Lots. Existing parking lots to receive bituminous surface treatment, A3 include the site office parking lot, campground parking lot, hunter parking lot no. 1, hunter parking lot no. 2, hunter parking lot no. 3, and hunter parking lot no. 4. Hunter parking lot no. 4 will also 2” of aggregate

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

base course before bituminous surface treatment, A3. Existing HMA parking lots to receive parking lot seal coat include boat ramp parking lot 1 and boat ramp parking lot 2.

Work Items: Roadway items of work include earth excavation, aggregate base course, aggregate base repair, pavement patching (special), preparation of base (special), bituminous surface treatment A1 and A3, bituminous materials (fog seal), parking lot seal coat, aggregate wedge shoulder, pipe culvert and end sections, stone riprap, pavement marking, signing, and all other necessary and collateral work to complete the project as shown on the plans and as specified elsewhere in these provisions.

EXAMINATION OF SITE

Each bidder shall visit the site of the proposed work prior to submitting his/her bid and fully acquaint himself/herself with conditions, quantities, and measurements relating to the construction of this project. The cost of labor and materials necessary to comply with this provision will not be paid for separately but shall be considered as included in the unit bid prices of the contract and no additional compensation will be allowed.

STATUS OF UTILITIES TO BE ADJUSTED

| <u>Name & Address of Utility</u> | <u>Type</u> | <u>Location</u> | <u>Estimated Date Relocation Complete</u> |
|---|----------------|-----------------|---|
| Clearwave Communications Attn: Marcus Burrell Phone: (470) 990-1754 Marcus.burrell@clearwavefiber.com | Fiber | Project Limits | TBD |
| Carrier Mills Water Department Attn: Joe Van Meter Phone: (618) 841-2662 cmillswater@gmail.com | Water | Project Limits | TBD |
| Frontier Communications Attn: Kalin Hinshaw Phone: (815) 895-1515 Kalin.Hinshaw@FTR.com | Communications | Project Limits | TBD |
| Futiva, LLC Attn: Bill Hermetz Phone: (618) 736-2216 billh@hamiltoncom.net | Communications | Project Limits | TBD |
| Zito Media Attn: Derrick Mowery Phone: (814) 203-8200 Derrick.Mowery@zitomedia.com Attn: Jackie Thomas Phone: (814) 203-8200 Jackie.Thomas@zitomedia.com | Communications | Project Limits | TBD |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| | | | |
|---|----------|-------------------|-----|
| Southeastern IL Electric Coop Attn: Travis Jones Phone: (618) 273-3597 or (618) 527-0492 travisjones@seiec.com | Electric | Project Limits | TBD |
| Liberty Utilities - Harrisburg Attn: Deon Scott Phone: 618-841-7979 Deon.scott@libertyutilities.com | | Project Limits | TBD |

The above represents the best information of IDNR and is only included for the convenience of the bidder. The applicable provisions of Articles 102.01, 105.07, 107.20, 107.37, 107.38, 107.39, 107.40, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

If any utility adjustment or removal has not been completed when required by the Contractor's operation, the Contractor should notify the Engineer in writing. Requests for an extension of time will be considered to the extent the Contractor's operations were affected.

TRAFFIC CONTROL PLAN

Traffic control shall be in accordance with the applicable section of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, Illinois Supplement to the National Manual of Uniform Traffic Control Devices, these special provisions, and any special details and highway standards contained herein and in the plans.

Special attention is called to Article 107.09, 107.14 and 701 through 705 of the Standard Specifications for Road and Bridge Construction, and as amended by the Supplemental Specifications, Recurring Special Provisions, the highway standards, and other special provisions and details relating to traffic control for this project:

- 1) Recurring Special Provisions:
 - Work Zone Traffic Control Surveillance (Check Sheet #LRS 3)
 - Flaggers In Work Zones (Check Sheet #LRS 4)

- 2) Highway Standards:
 - 701001 – Off-Road Operations, 2L, 2W, More than 15' Away
 - 701006 – Off-Road Operations, 2L, 2W, 15' to 24" from Pavement Edge
 - 701011 – Off-Road Moving Operations, 2L, 2W, Day Only
 - 701201 – Lane Closure, 2L, 2W, Day Only, For Speeds ≥ 45 MPH
 - 701301 – Lane Closure, 2L, 2W, Short Time Operations
 - 701306 – Lane Closure, 2L, 2W, Slow Moving Operations Day Only, for Speeds ≥ 45 MPH
 - 701901 - Traffic Control Devices
 - BLR 22 – Typical Application of Traffic Control Devices for Construction on Rural Local Highways (2-Lane 2 Way Rural Traffic)(Road Closed To Thru Traffic)

- 3) Special Provisions
 - Traffic Control and Protection, (Special)
 - Construction Coordination with Site Operations
 - Short Term and Temporary Pavement Markings

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

Vehicle and Equipment Warning Lights (BDE)
Work Zone Traffic Control Devices (BDE)
Construction and Maintenance Signs (BLR&S)

Limitations of Construction: The Contractor shall coordinate the items of work to keep hazards and traffic inconveniences to a minimum, as specified below.

1. The Contractor shall provide, erect, and maintain all the necessary barricades, cones, drums, and lights for the warning and protection of traffic as required by Sections 107 and 701 through 703 of the Standard Specifications and as modified.
2. The Contractor will be responsible for the traffic control devices at all times during construction activities and shall coordinate the items of work in order to keep hazardous traffic inconveniences to a minimum. The Contractor will be responsible for the traffic control devices at all times during any construction shut-down periods.
3. Traffic control devices shall be in new or like-new condition equipped with new reflective sheeting at the time of use. The Engineer will be the sole judge of the condition of the devices. All warning signs shall be 48 inches by 48 inches and have a black legend on a fluorescent orange reflectorized background.
4. At the direction of the Engineer, when closing parking lots or dead-end roads to traffic, type III barricades with standard sign R11-2 or R11-4 (ROAD CLOSED) mounted shall be used.
5. At the direction of the Engineer, W20-1103(0)-48 (ROAD CONSTRUCTION AHEAD) signs shall be placed prior to active work areas.
6. Tripod mounted signs will be allowed as long as the Contractor ensures they are up and stable at all times where applicable, as determined by the Engineer.
7. At the direction of the Engineer, Campground Road, Haulage Road from Station 458+81 to Station 559+60, or parking lots may be closed for a limited duration while construction activities are being performed. Twenty-four hour notice shall be given prior to closing any parking lot or road.

Sequence and Limits of Construction: The following is the anticipated sequence of construction for the site:

- Culvert installations
- Pavement patching
- Grading and shaping ditches
- Aggregate base repair and preparation of base
- Aggregate base course on roads and parking lots
- Bituminous surface treatment on park roads and parking lots
- Seal coat on parking lots
- Pavement marking and signing
- Other work within the park can occur during the above noted work periods

As this project will be constructed while the site is open, the Contractor is expected to coordinate activities to facilitate site operations. The above sequence may be modified by the Engineer, and the Contractor may request modification with the approval of the Engineer at no additional cost to the project.

Measurement and Payment for Traffic Control and Protection: All traffic control and protection will be measured and paid for in accordance with the Traffic Control and Protection (Special) special provision included herein.

TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

This work shall include furnishing, installing, maintaining, providing surveillance, replacing, relocating and removing all traffic control devices used for the purpose of regulating, warning, or directing vehicular and pedestrian traffic during the construction of this project in accordance with the traffic control plan and as directed by the Engineer.

Traffic control and protection, (special) shall be provided as called for in these special provisions, applicable highway standards, applicable sections of the Standard Specifications, or as directed by the Engineer.

All traffic control devices used on this project shall conform to the special provisions, traffic control standards, "Illinois Supplement to the National Manual on Uniform Traffic Control Devices", and "Manual on Uniform Traffic Control Devices." No modification of these requirements will be allowed without prior written approval of the Engineer. Traffic control devices include signs and their supports, signals, barricades with sandbags, channelizing devices, warning lights, arrow boards, flaggers, or any other device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

When directed by the Engineer, the Contractor shall remove all traffic control devices which were furnished, installed, and maintained under this contract, and such devices shall remain the property of the Contractor. Lane closures and the prohibition of access to portions of the site shall only be left in place as they are needed. At all other times, traffic control shall be removed unless directed by the Engineer. Failure to restore lanes to full width will result in a traffic control deficiency as specified in Article 105.03.

Traffic control and protection standards used on this project will not be measured or paid for separately but shall be included in the cost for Traffic Control and Protection, (Special).

This work will be paid for at the contract unit price per LUMP SUM for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) with no additional compensation allowed.

OHV PARKING LOT ACCESS

Township and IDNR park roads shall remain open to traffic for the duration of the project to provide access to the OHV parking lot at all times. Traffic may be reduced to one lane with flaggers as directed by the Engineer. This work shall not be paid for separately but shall be included in the price of the various traffic control items.

CONSTRUCTION COORDINATION WITH SITE OPERATIONS

The work at Sahara Woods State Fish and Wildlife Area will require coordination with the site personnel to assure the maximum possible use of these facilities by the public during the construction period. All construction area preparations, means, and methods are required to be submitted to the site personnel and must receive written approval prior to the initiation of construction.

For the various project components to be constructed, the work may be limited to certain areas prior to and during holiday weekends. Safety measures, including barricades, lighting, and traffic control measures must be provided and maintained during the entire period from initiation of work at a location within the site until all the work at that location is completed.

The costs involved with providing the necessary staging and related safety measures will not be paid for separately but shall be considered included in the cost of the contract.

TRENCH BACKFILL

Granular bedding and trench backfill required for pipe culvert construction shall conform to Section 208 of the Standard Specifications except as herein modified.

Crushed stone conforming to the gradation for CA-6 as defined in Section 1004 of the Standard Specifications shall be used as the trench bedding and backfill material in all roadways and in all trenches where the inner edge of the trench is closer than 2 feet to the edge of pavement. Trench backfill material shall be compacted according to method 1, as specified in Article 550.07(a) of the Standard Specifications.

This work will be measured for payment in cubic yards.

This work will be paid for at the contract unit price per CUBIC YARD for TRENCH BACKFILL, which price shall be payment in full for all labor, equipment, and materials required to complete the work as herein specified. No compensation will be allowed for the portion of the trench backfilled with excavated material.

AGGREGATE BASE COURSE, TYPE B

Description. This work shall consist of furnishing and placing one or more courses of aggregate base course upon a prepared subgrade or subbase as shown in the plans, in accordance with Section 351 of the Standard Specifications, and as herein specified.

Variable depth aggregate base course used to raise the profile of Campground Road to accommodate installation of the new pipe culverts shall be CA-6.

Method of Measurement. This work will be measured for payment in tons in accordance with Article 351.11 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per TON for AGGREGATE BASE COURSE, TYPE B, which price shall be payment in full for all labor, equipment, and materials required to complete the work as herein specified.

AGGREGATE WEDGE SHOULDER, TYPE B

Description. This work consists of the construction of aggregate wedge shoulders at locations shown on the plans, as directed by the Engineer, and in accordance with Section 481 of the Standard Specifications except as herein specified.

Materials utilized for aggregate shoulders shall be crushed stone.

Method of Measurement. This work will be measured for payment in tons in accordance with Article 481.09 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per TON for AGGREGATE WEDGE SHOULDER, TYPE B, which price shall be payment in full for all labor, equipment, and materials required to complete the work as herein specified.

REMOVE AND REINSTALL PARKING BLOCKS

This work shall consist of the careful removal of the parking blocks and the reinstallation or disposal of the parking blocks, at the locations noted in the plans and in accordance with this special provision. The steel pins that anchor the existing parking blocks may be pulled out, cut flush or driven into the ground to be flush with the existing adjacent asphalt surface.

Upon reinstallation, new #6 rebar steel pins 36" in length shall be driven through the existing holes in the parking blocks into a new asphalt surface or through drilled holes in a concrete or asphalt surface to be 1" below the top of the parking block, to hold the parking blocks in place. The new pins shall not be paid for separately but shall be considered included in this pay item. If the existing parking blocks are damaged, they shall be disposed of according to Article 440.06 of the Standard Specifications and replaced at the Contractor's expense.

This work will be paid for at the contract unit price per EACH for REMOVE AND REINSTALL PARKING BLOCKS. This price shall include all labor, equipment and material needed to complete the work as specified above and as shown in the plans.

PARKING LOT SEAL COAT

Description. This work shall consist of applying a seal coat to existing HMA parking lots. This application is to occur prior to the placement of any proposed asphalt surface course material in areas adjacent to the existing pavement. The seal coat consists of two applications of coal tar pitch emulsion slurry. The Contractor shall coordinate the construction of this work with site personnel to minimize the time that access to the site is restricted.

Materials. Materials shall be according to the following.

Coal tar pitch emulsion shall meet the requirements of ASTM D 5727 for Emulsified Refined Coal Tar (Mineral Colloid Type) with a latex additive.

Fine aggregate shall meet the requirements of Article 1003.01 of the Standard Specifications and shall be clean, dry, hard, and angular. The fine aggregate shall meet the following gradation:

| Sieve Size | Percent Passing |
|-------------------|-----------------|
| No. 16 (1.18 mm) | 90 to 100 |
| No. 40 (0.425 mm) | 40 to 85 |
| No. 200 (0.075mm) | 0 to 5 |

Water shall meet the requirements of Article 1002.01 of the Standard Specifications.

Slurry Mix Design and Application Rate. The mix design and application rate shall be according to the sealer manufacturer's specifications. Each application shall contain fine aggregate. The Contractor shall submit the sealer product information; manufacturer's application requirements, including proposed slurry application rates for each application; mixture proportioning; latex additive information; and fine aggregate type and gradation information to the Engineer for approval at least ten days prior to the start of sealing operations. The seal coat consists of two applications of coal tar pitch emulsion slurry.

Surface Preparation. All loose aggregate, pavement material, dirt, and debris shall be removed from the existing pavement surface using a method approved by the Engineer. Existing oil spots shall be cleaned according to sealer manufacturer's requirements. Waste material produced during pavement cleaning operations shall be removed at the close of each day's work and shall be disposed of according to Article 202.03 of the Standard Specifications.

Weather Limitations. Weather limitations shall be according to Article 403.04 as defined in the Bituminous Surface Treatment with Fog Seal special provision, except slurry placement shall not start if the local national weather service forecast indicates the possibility of rain within 24 hours.

Slurry Mixing and Application. Slurry shall be mixed according to the sealer manufacturer's requirements. The mixing process shall result in a homogeneous mixture with no segregation, lumps, or hardening. The mixture shall be agitated as needed to ensure it remains homogeneous during the application. If the Contractor elects to use a spray applicator or distributor, the equipment shall be equipped with an agitator to keep the slurry uniformly mixed during application. The slurry shall be uniformly applied according to the sealer manufacturer's requirements. Care shall be taken to ensure slurry is not placed, splashed, or over sprayed, on appurtenances outside the limits of existing hot mix asphalt designated in the plans.

The first slurry application shall be cured for a time sufficient to prevent damage from equipment placing the final coat of slurry as determined by the Engineer. The final slurry application shall be cured for 24 hours.

Method of Measurement. This work will be measured for payment as follows.

Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a) of the Standard Specifications.

Measured Quantities. Parking lot seal coat (two applications) will be measured for payment in square yards. Applications shall not be measured separately for payment. The total existing area to be covered will be area measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per SQUARE YARD for PARKING LOT SEAL COAT, which price shall include all labor, equipment and materials needed to complete the work as specified above.

CLEARING AND GRUBBING

This work consists of removing all underbrush and phragmites from the side slope along the ditch regrading on Campground Road in accordance with Section 201 of the Standard Specifications, as shown in the plans, and as modified herein.

This work shall be measured in square yards of cleared area.

This work will be paid for at the contract unit price per SQUARE YARD for CLEARING AND GRUBBING.

REMOVE EXISTING RIPRAP

This work shall consist of the removal and satisfactory disposal of existing stone or broken concrete riprap at the locations shown in the plans, as directed by the Engineer, in accordance with Section 202 of the Standard Specifications, and as herein specified.

The removal shall include any bedding material that may exist beneath the riprap and any incidental site grading of the embankment area necessary to create a smooth embankment slope meeting the approval of the Engineer.

It shall be the responsibility of the Contractor to determine the thickness of the riprap to be removed. No additional compensation will be allowed because of variations from the assumed thickness or thicknesses that may be called out on the plans.

At the direction of the Engineer, holes or voids created in the earth due to removal of the riprap that cannot be graded to a smooth surface shall be filled back to grade with suitable material. The cost of this backfill is included in the cost of Remove Existing Riprap.

This work shall be measured for payment in square yards in accordance with Article 202.07(a) of the Standard Specifications.

This work will be paid for at the contract unit price per SQUARE YARD for REMOVE EXISTING RIPRAP, which price shall be payment in full for all labor and equipment required to complete the work as herein specified.

PREPARATION OF BASE (SPECIAL)

This work consists of preparing the existing surface in preparation for bituminous surface treatment. All work shall conform to Section 358 of the Standard Specifications and the following.

1. The existing aggregate surfaces and oil and chip surfaces shall be repaired and prepped according to Sections 358.04.
2. The Contractor shall re-establish the crown of any existing roadways that are flatter than 1.5%.

The work in connection with the repair and preparation of bases, except materials, will be paid for at the contract unit price per SQUARE YARD for PREPARATION OF BASE (SPECIAL).

Additional material required for the repair of aggregate bases will be paid for at the contract unit price per TON for AGGREGATE BASE REPAIR.

PAVEMENT PATCHING (SPECIAL)

This work consists of the removal of the existing pavement, the necessary excavation and the replacement with specific materials in accordance with Sections 351, 406, and 442 of the Standard Specifications, and as herein specified.

The pavement patch shall consist of a minimum of 8" aggregate base course, type B and 2" HMA binder course, IL-19.0, N50. The final surface of the binder course shall be placed at the existing surface elevation. All work associated with the pavement patch shall be included in this item, including saw cuts, pavement removal, and earth excavation and shall not be paid for separately but included in pavement patching as herein specified.

Pavement patching location as shown in the plans.

This work will be paid for at the contract unit price per SQUARE YARD for PAVEMENT PATCHING (SPECIAL), which price shall be payment in full for all labor, equipment, and materials necessary to perform the work as specified.

CONSTRUCTION AND MAINTENANCE SIGNS (BLR&S)

Effective: January 1, 2004

June 1, 2007

Revise Article 701.14 to add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 48" x 48" and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

LOCAL QUALITY ASSURANCE/QUALITY MANAGEMENT QC/QA (BLR&S)

Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

“1030.06 Quality Management Program. The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following.”

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

“(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations” at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. diameter core. With the approval of the Engineer, the cores may be cut at a later time.”

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

“(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below.

| Density Verification Method | |
|-----------------------------|--|
| <input type="checkbox"/> | Cores |
| <input type="checkbox"/> | Nuclear Density Gauge (Correlated when paving \geq 3,000 tons per mixture) |

Density verification test locations will be determined according to the document “Hot- Mix Asphalt QC/QA Procedure for Determining Random Density Locations”. The density testing interval for paving wider than or equal to 3 ft will be 0.5 miles for lift thicknesses of 3 in. or less and 0.2 miles for lift thicknesses greater than 3 in. The density testing interval for paving less than 3 ft wide will be 1 mile. If a day’s paving will be less than the prescribed density testing interval, the length of the day’s paving will be the interval for that day. The density testing

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275. If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method". A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID lab.

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006

Revised: August 1, 2017

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$$

- Where: CA = Cost Adjustment, \$.
BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/ton (\$/metric ton).
%AC_V = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 1) / 1000$. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$
For bituminous materials measured in liters: $Q, \text{ metric tons} = V \times 1.0 \text{ kg/L} \times SG / 1000$

- Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.
V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) \div BPI_L\} \times 100$$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

BITUMINOUS SURFACE TREATMENT WITH FOG SEAL (BDE)

Effective: January 1, 2020

Revised: January 1, 2022

Replace Section 403 of the Standard Specifications with the following:

“SECTION 403. BITUMINOUS SURFACE TREATMENT WITH FOG SEAL

403.01 Description. This work shall consist of constructing a single or multiple course bituminous surface treatment with fog seal.

- (a) A-1. A-1 shall consist of an emulsified asphalt and a seal coat aggregate with an emulsified asphalt fog seal.
- (b) A-2. A-2 shall consist of an emulsified asphalt and a cover coat aggregate, and an emulsified asphalt and seal coat aggregate with an emulsified asphalt fog seal.
- (c) A-3. A-3 shall consist of two separate applications of an emulsified asphalt and cover coat aggregate, and an emulsified asphalt and seal coat aggregate with an emulsified asphalt fog seal.

403.02 Materials. Materials shall be according to the following.

| Item | Article/Section |
|---|-----------------|
| (a) Cover Coat Aggregate..... | 1003, 1004.03 |
| (b) Seal Coat Aggregate (Note 1) | 1003, 1004.03 |
| (c) Emulsified Asphalts (Note 2) (Note 3) | 1032 |

Note 1. The seal coat aggregate shall be either fine or coarse aggregate.

When fine aggregate is used, it shall be stone sand, wet bottom boiler slag, slag sand, or steel slag sand. The aggregate gradation shall be FA 1 (Special), FA 4 (Special), or FA 22 as specified on the plans and shall meet the following.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| FINE AGGREGATE GRADATIONS | | | | | | |
|---------------------------|--------------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
| Grad. No. | Sieve Size and Percent Passing | | | | | |
| | 3/8 in. (9.5 mm) | No. 4 (4.75 mm) | No. 8 (2.36 mm) | No. 16 (1.18 mm) | No. 40 (425 µm) | No. 200 (75 µm) |
| FA 1 (Special) | 100 | 90 ± 10 | 62.5 ± 17.5 | 32.5 ± 7.5 | 7.5 ± 7.5 | 1.5 ± 1 |
| FA 4 (Special) | 100 | -- | -- | 2 ± 2 | -- | 1.5 ± 1 |
| FA 22 | 100 | 1/ | 1/ | 8 ± 8 | -- | 2 ± 2 |

1/ For the fine aggregate gradation FA 22, the aggregate producer shall set the midpoint percent passing, and the Department will apply a range of ± 10 percent. The midpoint shall not be changed without Department approval.

When coarse aggregate is used, it shall be crushed gravel, crushed stone, wet bottom boiler slag, crushed slag, crushed sandstone, or crushed steel slag. The coarse aggregate material shall be selected from the table in Article 1004.03(a) based upon the friction aggregate mixture specified. The aggregate quality shall be Class B and the total chert count shall be no more than 25.0 percent by weight (mass) as determined by the ITP 203. The aggregate gradation shall be CA 14, CA 15, CA 16, or CA 20 as specified on the plans.

Note 2. The emulsified asphalt used to construct the bituminous surface treatment shall be either CRS-2P or HFRS-2P.

Note 3. The emulsified asphalt used to construct the fog seal shall be either SS-1h or CSS-1h.

403.03 Equipment. Equipment shall be according to the following.

| Item | Article/Section |
|--|-----------------|
| (a) Self-Propelled Pneumatic-Tired Roller (Note 1) | 1101.01 |
| (b) Mechanical Sweeper (Note 2) | 1101.03 |
| (c) Aggregate Spreaders (Note 3) | 1102.04 |
| (d) General Use Pressure Distributor (Note 4) | 1102.05(a) |
| (e) Heating Equipment | 1102.07 |

Note 1. There shall be a minimum of two rollers, with the final number of rollers determined by the rollers' abilities to maintain proper spacing with the aggregate spreader as directed by the Engineer.

Note 2. The mechanical sweeper shall be power driven and self-propelled with the broom located between the axles. The mechanical sweeper shall not use a cantilever-mounted broom and the broom rotation shall not be operated by forward movement.

Note 3. The aggregate spreader shall be a self-propelled mechanical type with the receiving hopper in the rear and shall pull the aggregate truck. The spreader shall be fitted with an automated system which provides positive interconnected control of the aggregate flow with the forward speed of the spreader. The automated

system shall provide uniform and consistent aggregate application at the rate specified.

The Engineer will check the spread roll of the aggregate spreader for straightness each day before operations begin. Should the surface of the spread roll vary off a straight line along its longitudinal dimension by more than 1/16 in. (1.5 mm), the Engineer will inspect the application of aggregate for corrugations and, should these occur, the machine shall be repaired or replaced. The forward speed of the spreader during calibration shall be the same as is to be used during construction. The equipment required for aggregate spreader calibration may consist of several sheets of canvas, each being exactly 1 sq yd (0.8 sq m), and a weight scale. By making several runs at different gate openings over the sheets of canvas, placed to cover the full width applied by the spreader, and carefully measuring the aggregate on each canvas sheet, the gate opening at the pre-established speed required to apply aggregate at the specified rate may be determined.

Note 4. The general use pressure distributor shall have a minimum capacity of 3000 gal (11,500 L). The application rate control shall be automated and shall control the application rate regardless of ground speed or spray bar width. The computer shall have the capability of recording the application rate, gallons sprayed, square yards, and feet traveled. The general use pressure distributor shall be capable of maintaining the asphalt emulsion at the specified temperature. The spray bar nozzles shall produce a uniform triple lap application fan spray, and the shutoff shall be instantaneous, with no dripping. The general use pressure distributor shall be capable of maintaining the specified application rate within ± 0.015 gal/sq yd (± 0.070 L/sq m) for each load. The spray-bar nozzles shall be turned to make the same angle with the longitudinal axis of the spray bar as recommended by the manufacturer.

Application rates shall be determined by the procedures listed in ASTM D 2995, except the sample may be taken on three 8 x 12 in. (200 x 300 mm) metal plates. The three plates shall be positioned as directed by the Engineer.

CONSTRUCTION REQUIREMENTS

403.04 Weather Limitations. This work shall be done between May 1 and August 31. Emulsified asphalt shall be applied only when the temperature of the air in the shade is above 55 °F (13 °C). No work shall be started if local conditions indicate that rain is imminent.

Fog seal operations shall be performed during daylight hours and not during foggy weather. The road surface may be damp but shall be free of standing water.

This work may be done between September 1 and September 15 provided both of the following conditions are met:

- (a) The temperature of the air in the shade is above 70 °F (20 °C) and the temperature of the surface to which the asphalt will be applied is 70 °F (20 °C) or above, and
- (b) The National Weather Service forecast for the area does not show any rain or any temperatures below 55 °F (13 °C) for the day the work is to be done or for the following five days.

403.05 Repair and Preparation of Base or Existing Surface. The base or existing surface shall be prepared according to Section 358.

403.06 Calibration. At least three days prior to starting the work, the Contractor shall provide the Engineer with a copy of the manufacturer's recommendations for the equipment to be used. The working day prior to starting construction, the general use pressure distributor and aggregate spreader shall be calibrated and adjusted according to the manufacturer's recommendations. Calibrations and adjustments shall be made in the presence of the Engineer on a level surface at a location approved by the Engineer. The Contractor shall maintain proper calibration and adjustment of the equipment and the Engineer reserves the right to check application rates as the work progresses. Should the equipment fail to consistently apply the specified rates, the work shall be stopped, and the Contractor shall recalibrate and readjust the equipment.

403.07 Application Rates. Based upon the aggregate gradation to be used, the Contractor shall determine the application rates of emulsified asphalt and cover or seal coat aggregate. The application rates along with the gradations shall be submitted to the Engineer for approval prior to the start of work. Application rates shall be according to the following table for the aggregate type shown on the plans and shall result in aggregate embedment between 50 and 70 percent behind the roller. Changes in the application rate of greater than 15 percent shall be resubmitted to the Engineer for approval.

| Aggregate Type | Emulsified Asphalt Rate | Aggregate Rate |
|----------------|---|---------------------------------------|
| CA 14 | 0.38 – 0.46 gal/sq yd (1.7 – 2.1 L/sq m) | 24 – 32 lb/sq yd (13 – 17 kg/sq m) |
| CA 15 | 0.38 – 0.46 gal/sq yd (1.7 – 2.1 L/sq m) | 22 – 30 lb/sq yd (12 – 16 kg/sq m) |
| CA 16 | 0.38 – 0.45 gal/sq yd (1.7 – 2.0 L/sq m) | 18 – 26 lb/sq yd (10 – 14 kg/sq m) |
| CA 20 | 0.36 – 0.45 gal/sq yd (1.6 – 2.0 L/sq m) | 18 – 26 lb/sq yd (10 – 14 kg/sq m) |
| FA 1 (Special) | 0.26 – 0.30 gal/sq yd (1.2 – 1.4 L/sq m) | 16 – 20 lb/sq yd (9 – 11 kg/sq m) |
| FA 4 (Special) | 0.28 – 0.36 gal/sq yd (1.3 – 1.6 L/sq m) | 18 – 24 lb/sq yd (10 – 13 kg/sq m) |
| FA 22 | 0.32 – 0.40 gal/sq yd (1.5 – 1.8 L/sq m) | 15 – 22 lb/sq yd (8 – 12 kg/sq m) |

403.08 Preparation of Emulsified Asphalt. The temperature of the emulsified asphalt at the time of application shall be such that it sprays uniformly without clogging the spraying nozzles and is applied within the temperature range of 150 – 190 °F (65 – 90 °C).

403.09 Preparation of Aggregate. The aggregate shall be stockpiled near the jobsite according to Article 1003.01(e) or 1004.01(e). The aggregate used shall contain no free moisture but the aggregate shall be slightly damp (saturated surface-dry or drier).

403.10 Application of Emulsified Asphalt. The emulsified asphalt shall be applied with a general use pressure distributor. The entire length of the spray bar shall be set at the height above the surface recommended by the manufacturer for even distribution of the emulsified asphalt. A hand spray bar shall be used at locations not covered by the distributor.

The distributor shall be operated in a manner such that missing or overlapping of transverse joints shall be avoided. To prevent overlapping of successive applications of emulsified asphalt at transverse joints, heavy paper shall be spread over the previously applied emulsified asphalt and aggregates. In order to obtain a uniform application of the emulsified asphalt, the distributor shall be traveling at the speed required for the specified rate of application when the spray bar crosses the paper.

Adjacent construction, such as concrete pavement, curb and gutter, bridge floors, raised reflective pavement markers, and bridge handrails, shall be protected by shields, covers or other means. If emulsified asphalt is applied to adjacent construction, the Contractor shall remove such material to the satisfaction of the Engineer.

The emulsified asphalt shall not be applied when the wind conditions will inhibit uniform coverage from the fans of asphalt being applied.

403.11 Application of Aggregates. The cover and seal coat aggregates shall be spread evenly with an aggregate spreader over the entire surface being treated. When treating one-half of the pavement width at a time, an inside strip of uncovered emulsified asphalt 3 in. (75 mm) wide shall be left during construction of the first half to provide center joint overlap when the second half of the treatment is placed. In all cases, the aggregate shall be applied ahead of the truck or spreader wheels. Hand spreading will be permitted only when approved by the Engineer and, when so permitted, the aggregate shall be spread uniformly and at the approximate rate specified. Any ridges of aggregate left by the aggregate spreader shall be smoothed out with hand brooms immediately behind the aggregate spreader.

Equipment involved in the work shall operate as close to each other as practical. The aggregate spreader shall be within 150 ft (45 m) of the pressure distributor and the aggregate shall cover the asphalt emulsion within 30 seconds of application to ensure proper asphalt/aggregate adhesion.

Each aggregate truck shall be equipped with a suitable hitch for connection to the aggregate spreader while unloading. The trucks shall avoid contact between the truck body or bed and the aggregate spreader. The body or bed of the truck shall be modified, if necessary, to empty cleanly and completely into the receiving hopper of the aggregate spreader. No aggregate shall be allowed to spill onto the road surface when the truck is emptying into this hopper.

403.12 Cover Coat. Emulsified asphalt for the cover coat shall not be applied until the previous application is acceptable to the Engineer.

At the beginning of each day's work, no emulsified asphalt shall be applied until there is sufficient cover coat aggregate in the trucks at the work site to completely cover the first application of asphalt emulsion. The amount of surface area covered by each successive application of emulsified asphalt shall be determined by the Engineer. In no case shall this area be greater than can be covered with cover coat aggregate and given the initial rolling while the emulsified asphalt is still in condition to hold aggregate.

The emulsified asphalt shall be applied uniformly over the surface at the rate specified in the table above. Immediately following the application of the asphalt emulsion, the cover coat aggregate shall be spread over the treated surface at the rate specified in the table above.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

The aggregate shall be rolled following spreading. A maximum time of five minutes will be allowed between the spreading of aggregate and completion of the initial rolling of the aggregate. The rollers shall proceed in a longitudinal direction at a speed less than or equal to 5 mph (8 km/h). Each roller will travel over the aggregate a minimum of two times. The entire surface shall be rolled immediately with a self-propelled pneumatic-tired roller. Rolling shall proceed in a longitudinal direction beginning at the edges and progressing toward the center, overlapping on successive trips by at least 1/2 the width of the roller. The aggregate shall then be rolled with a separate pneumatic-tired roller until the aggregate is properly seated in the asphalt emulsion.

403.13 Seal Coat. When constructing A-2 or A-3, the seal coat shall not be started until the cover coat immediately preceding the seal coat is completed.

Application of the emulsified asphalt and aggregate and rolling of the seal coat shall be the same as specified above for the cover coat.

During the construction period, the Contractor shall maintain the completed work. If necessary, the Contractor shall apply additional seal coat aggregate to absorb excess bitumen appearing on the surface and shall repair any areas where pickup has occurred.

The Contractor shall use the appropriate sweeping equipment to perform an initial sweeping after a minimum of two hours curing and not less than one hour before sunset on the day the bituminous surface treatment is placed. The initial sweeping shall remove excess aggregate by lightly sweeping each pavement lane. The sweeping shall be sufficient to prevent migration of loose aggregate back onto any part of the pavement.

The Contractor shall sweep the pavement surface as needed to remove excess aggregate.

403.14 Application of Fog Seal. The emulsified asphalt for the fog seal shall not be applied to the treated surface until the seal coat has cured for at least 24 hours.

The emulsified asphalt shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface of 0.03 to 0.08 lb/sq ft (0.146 to 0.391 kg/sq m). An application rate greater than 0.05 lb/sq ft (0.244 kg/sq m) shall be applied in two passes, one from each direction. The Contractor shall demonstrate the application will produce 100 percent coverage of the surface after curing. If the application demonstration does not meet the coverage requirements, the spray pattern shall be adjusted until approved by the Engineer. The emulsified asphalt shall be applied in a manner to minimize the amount of overspray.

A check shall be performed in the first 1,000 ft (300 m) to verify the application rate according to the test procedure for "Determination of Residual Asphalt in Prime and Tack Coat Materials".

403.15 Opening to Traffic. The road shall be opened to traffic according to Article 701.17(c)(4).

403.16 Method of Measurement. The bituminous surface treatment (A-1, A-2, or A-3) will be measured for payment in place and the area computed in square yards (square meters). The width for measurement will be the top width of the bituminous surface treatment as shown on the plans or as directed by the Engineer.

Emulsified asphalt for fog seal will be measured for payment as specified in Section 1032.

403.17 Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for BITUMINOUS SURFACE TREATMENT, of the type specified.

Emulsified asphalt for fog seal will be paid for at the contract unit price per pound (kilogram) of residual asphalt for BITUMINOUS MATERIALS (FOG SEAL).

When provided as a payment item, the preparation of the existing surface will be measured and paid for as specified in Section 358. If not provided as a payment item, preparation of existing surface will be paid for according to Article 109.04.”

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

Effective: January 1, 2025

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).

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

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 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

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

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.”

Revise Article 1017.01 of the Standard Specifications to read:

“1017.01 Requirements. 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 by the Department according to Illinois Modified AASHTO T 161 or AASHTO T 161 when tested by an independent lab. The high-strength mortar shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the high-strength mortar shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the high-strength mortar shall be according to the manufacturer’s specifications. The Department will maintain a qualified product list.”

Revise the fourth sentence of Article 1018.01 of the Standard Specifications to read:

“The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department.”

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. Prior to approval, a CLSM air-entraining admixture will be evaluated by the Department. The admixture

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

shall be able to meet the air content requirements of Mix 2. The Department will maintain a qualified product list.”

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 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

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

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 the third sentence of the second paragraph of Article 1020.05(b)(5) of the Standard Specifications to read:

“The qualified product lists of concrete admixtures shall not apply.”

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.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

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.”

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 Illinois Modified ASTM C 1107.

The nonshrink grout shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the grout shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the nonshrink grout shall be according to the manufacturer’s specifications. The Department will maintain a qualified product list.”

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 |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| | |
|---|------|
| (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 the first two sections of Check Sheet #11 of the Supplemental Specifications and 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 of Division 1000 - Materials 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 third paragraph of Materials Note 2 of Check Sheet #28 of the Supplemental Specifications and Recurring Special Provisions to read:

“The Department will maintain a qualified product list of synthetic fibers, which will include the minimum required dosage rate. For the minimum required fiber dosage rate based on the Illinois Modified ASTM C 1609 test, a report prepared by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete shall be provided. The report shall show results of tests conducted no more than five years prior to the time of submittal.”

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.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| 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."

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (DBE)

Effective: September 1, 2000

Revised: January 2, 2025

1. OVERVIEW AND GENERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory. Award of the contract is conditioned on meeting the requirements of 49 CFR Part 26, and failure by the Contractor to carry out the requirements of Part 26 is a material breach of the contract and may result in the termination of the contract or such other remedies as the Department deems appropriate.
2. CONTRACTOR ASSURANCE. All assurances set forth in FHWA 1273 are hereby incorporated by reference and will be physically attached to the final contract and all subcontracts.
3. CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. The Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies and that, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform 1.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work in accordance with the requirements of 49 CFR 26.53 and SBE Memorandum No. 24-02.
4. IDENTIFICATION OF CERTIFIED DBE. Information about certified DBE Contractors can be found in the Illinois UCP Directory. Bidders can obtain additional information and assistance with identifying DBE-certified companies at the Department's website or by contacting the Department's Bureau of Small Business Enterprises at (217) 785-4611.
5. BIDDING PROCEDURES. Compliance with this Special Provision and SBE Policy Memorandum 24-02 is a material bidding requirement. The following shall be included with the bid.
 - (a) DBE Utilization Plan (form SBE 2026) documenting enough DBE participation has been obtained to meet the goal, or a good faith effort has been made to meet the goal even though the efforts did not succeed in obtaining enough DBE participation to meet the goal.

- (b) Applicable DBE Participation Statement (form SBE 2023, 2024, and/or 2025) for each DBE firm the bidder has committed to perform the work to achieve the contract goal.

The required forms and documentation shall be submitted as a single .pdf file using the “Integrated Contractor Exchange (iCX)” application within the Department’s “EBids System”.

The Department will not accept a bid if it does not meet the bidding procedures set forth herein and the bid will be declared non-responsive. A bidder declared non-responsive for failure to meet the bidding procedures will not give rise to an administrative reconsideration. In the event the bid is declared non-responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder’s proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

6. UTILIZATION PLAN EVALUATION. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate, and adequately document the bidder has committed to DBE participation sufficient to meet the goal, or that the bidder has made good faith efforts to do so, in the event the bidder cannot meet the goal, in order for the Department to commit to the performance of the contract by the bidder.

The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the Department determines, based upon the documentation submitted, that the bidder has made a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A and the requirements of SBE 2026.

If the Department determines that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan of that determination in accordance with SBE Policy Memorandum 24-02.

7. CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work the bidder commits to have performed by the specified DBEs and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE firms. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific guidelines for counting goal credit are provided in 49 CFR Part 26.55. In evaluating Utilization Plans for award the Department will count goal credit as set forth in Part 26 and in accordance with SBE Policy Memorandum 24-02.

8. CONTRACT COMPLIANCE. The Contractor must utilize the specific DBEs listed to perform the work and supply the materials for which each DBE is listed in the Contractor’s approved Utilization Plan, unless the Contractor obtains the Department’s written consent to terminate the DBE or any portion of its work. The DBE Utilization Plan approved by SBE is a condition-of-award, and any deviation to that Utilization Plan, the work set forth therein to be performed by DBE firms, or the DBE firms specified to perform that work, must be approved, in writing, by the Department in accordance with federal regulatory requirements. Deviation

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

from the DBE Utilization Plan condition-of-award without such written approval is a violation of the contract and may result in termination of the contract or such other remedy the Department deems appropriate. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan.

- (a) NOTICE OF DBE PERFORMANCE. The Contractor shall provide the Engineer with at least three days advance notice of when all DBE firms are expected to perform the work committed under the Contractor's Utilization Plan.
- (b) SUBCONTRACT. If awarded the contract, the Contractor is required to enter into written subcontracts with all DBE firms indicated in the approved Utilization Plan and must provide copies of fully executed DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (c) PAYMENT TO DBE FIRMS. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goal has been paid to the DBE. The Contractor shall document and report all payments for work performed by DBE certified firms in accordance with Article 109.11 of the Standard Specifications. All records of payment for work performed by DBE certified firms shall be made available to the Department upon request.
- (d) FINAL PAYMENT. After the performance of the final item of work or trucking, or delivery of material by a DBE and final payment to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement (form SBE 2115) to the Engineer. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

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.

PERFORMANCE GRADED ASPHALT BINDER (BDE)

Effective: January 1, 2023

Revise Article 1032.05 of the Standard Specifications to read:

“1032.05 Performance Graded Asphalt Binder. These materials will be accepted according to the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.” The Department will maintain a qualified producer list. These materials shall be free from water and shall not foam when heated to any temperature below the actual flash point. Air blown asphalt, recycle engine oil bottoms (ReOB), and polyphosphoric acid (PPA) modification shall not be used.

When requested, producers shall provide the Engineer with viscosity/temperature relationships for the performance graded asphalt binders delivered and incorporated in the work.

- (a) Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans and the following.

| Test | Parameter |
|---|------------|
| Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | -5 °C min. |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

- (b) Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans.

Asphalt binder modification shall be performed at the source, as defined in the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.”

Modified asphalt binder shall be safe to handle at asphalt binder production and storage temperatures or HMA construction temperatures. Safety Data Sheets (SDS) shall be provided for all asphalt modifiers.

- (1) Polymer Modification (SB/SBS or SBR). Elastomers shall be added to the base asphalt binder to achieve the specified performance grade and shall be either a styrene-butadiene diblock, triblock copolymer without oil extension, or a styrene-butadiene rubber. The polymer modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in Table 1 or 2 for the grade shown on the plans.

| Table 1 - Requirements for Styrene-Butadiene Copolymer (SB/SBS) Modified Asphalt Binders | | |
|---|---|---|
| Test | Asphalt Grade SB/SBS PG 64-28 SB/SBS PG 70-22 | Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SB/SBS PG 76-22 SB/SBS PG 76-28 |
| Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions | 4 (2) max. | 4 (2) max. |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240) | | |
| Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, % | 60 min. | 70 min. |

| Table 2 - Requirements for Styrene-Butadiene Rubber (SBR) Modified Asphalt Binders | | |
|---|---|---|
| Test | Asphalt Grade SBR PG 64-28 SBR PG 70-22 | Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SBR PG 76-22 SBR PG 76-28 |
| Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions | 4 (2) max. | 4 (2) max. |
| Toughness ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m) | 110 (12.5) min. | 110 (12.5) min. |
| Tenacity ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m) | 75 (8.5) min. | 75 (8.5) min. |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240) | | |
| Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, % | 40 min. | 50 min. |

- (2) Ground Tire Rubber (GTR) Modification. GTR modification is the addition of recycled ground tire rubber to liquid asphalt binder to achieve the specified performance grade. GTR shall be produced from processing automobile and/or truck tires by the ambient grinding method or micronizing through a cryogenic process. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall not contain free metal particles, moisture that would cause foaming of the asphalt, or other foreign materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois Modified AASHTO T 27 "Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates" or AASHTO PP 74 "Standard Practice for Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method", a 50 g sample of the GTR shall conform to the following gradation requirements.

| Sieve Size | Percent Passing |
|------------------|-----------------|
| No. 16 (1.18 mm) | 100 |
| No. 30 (600 µm) | 95 ± 5 |
| No. 50 (300 µm) | > 20 |

GTR modified asphalt binder shall be tested for rotational viscosity according to AASHTO T 316 using spindle S27. GTR modified asphalt binder shall be tested for original dynamic shear and RTFO dynamic shear according to AASHTO T 315 using a gap of 2 mm.

The GTR modified asphalt binder shall meet the requirements of Table 3.

| Table 3 - Requirements for Ground Tire Rubber (GTR) Modified Asphalt Binders | | |
|--|---|---|
| Test | Asphalt Grade GTR PG 64-28 GTR PG 70-22 | Asphalt Grade GTR PG 76-22 GTR PG 76-28 GTR PG 70-28 |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240) | | |
| Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, % | 60 min. | 70 min. |

- (3) Softener Modification (SM). Softener modification is the addition of organic compounds, such as engineered flux, bio-oil blends, modified vegetable oils, glycol amines, and fatty acid derivatives, to the base asphalt binder to achieve the specified performance grade. Softeners shall be dissolved, dispersed, or reacted in the asphalt binder to enhance its performance and shall remain compatible with the asphalt binder with no separation. Softeners shall not be added to modified PG asphalt binder as defined in Articles 1032.05(b)(1) or 1032.05(b)(2).

An Attenuated Total Reflectance-Fourier Transform Infrared spectrum (ATR-FTIR) shall be collected for both the softening compound as well as the softener modified asphalt binder at the dose intended for qualification. The ATR-FTIR spectra shall be collected on unaged softener modified binder, 20-hour Pressurized Aging Vessel (PAV) aged softener modified binder, and 40-hour PAV aged softener modified binder. The ATR-FTIR shall be collected in accordance with Illinois Test Procedure 601. The electronic files spectral files (in one of the following extensions or equivalent: *.SPA, *.SPG, *.IRD, *.IFG, *.CSV, *.SP, *.IRS, *.GAML, *.[0-9], *.IGM, *.ABS, *.DRT, *.SBM, *.RAS) shall be submitted to the Central Bureau of Materials.

Softener modified asphalt binders shall meet the requirements in Table 4.

| Table 4 - Requirements for Softener Modified Asphalt Binders | | |
|---|---------------|-------------|
| Test | Asphalt Grade | |
| | SM PG 46-28 | SM PG 46-34 |
| | SM PG 52-28 | SM PG 52-34 |
| | SM PG 58-22 | SM PG 58-28 |
| | SM PG 64-22 | |
| Small Strain Parameter (AASHTO PP 113) BBR, ΔT _c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | -5°C min. | |
| Large Strain Parameter (Illinois Modified AASHTO T 391) DSR/LAS Fatigue Property, Δ G* _{peak} τ, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | ≥ 54 % | |

The following grades may be specified as tack coats.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| | |
|------------------------------|------------|
| Asphalt Grade | Use |
| PG 58-22, PG 58-28, PG 64-22 | Tack Coat" |

Revise Article 1031.06(c)(1) and 1031.06(c)(2) of the Standard Specifications to read:

“(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin ABR shall not exceed the amounts listed in the following table.

| HMA Mixtures - RAP/RAS Maximum ABR % ^{1/ 2/} | | | |
|---|--------|---------|--|
| Ndesign | Binder | Surface | Polymer Modified Binder or Surface ^{3/} |
| 30 | 30 | 30 | 10 |
| 50 | 25 | 15 | 10 |
| 70 | 15 | 10 | 10 |
| 90 | 10 | 10 | 10 |

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ The maximum ABR percentages for ground tire rubber (GTR) modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

| HMA Mixtures - FRAP/RAS Maximum ABR % ^{1/ 2/} | | | |
|--|--------|---------|--|
| Ndesign | Binder | Surface | Polymer Modified Binder or Surface ^{3/} |
| 30 | 55 | 45 | 15 |
| 50 | 45 | 40 | 15 |
| 70 | 45 | 35 | 15 |
| 90 | 45 | 35 | 15 |
| SMA | -- | -- | 25 |
| IL-4.75 | -- | -- | 35 |

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).

- 3/ The maximum ABR percentages for GTR modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.”

Add the following to the end of Note 2 of Article 1030.03 of the Standard Specifications.

“A dedicated storage tank for the ground tire rubber (GTR) modified asphalt binder shall be provided. This tank shall be capable of providing continuous mechanical mixing throughout and/or recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ±0.40 percent.”

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2024

Revised: April 1, 2024

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 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.”

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

“250.07 Seeding Mixtures. The classes of seeding mixtures and combinations of mixtures will be designated in the plans.

When an area is to be seeded with two or more seeding classes, those mixtures shall be applied separately on the designated area within a seven day period. Seeding shall occur prior to placement of mulch cover. A Class 7 mixture can be applied at any time prior to applying any seeding class or added to them and applied at the same time.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| TABLE 1 - SEEDING MIXTURES | | | |
|---|---|--|---------|
| Class - Type | Seeds | lb/acre (kg/hectare) | |
| 1 Lawn Mixture 1/ | Kentucky Bluegrass | 100 (110) | |
| | Perennial Ryegrass | 60 (70) | |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 40 (50) | |
| 1A Salt Tolerant Lawn Mixture 1/ | Kentucky Bluegrass | 60 (70) | |
| | Perennial Ryegrass | 20 (20) | |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 20 (20) | |
| | <i>Festuca brevipilla</i> (Hard Fescue) | 20 (20) | |
| | <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass) | 60 (70) | |
| 1B Low Maintenance Lawn Mixture 1/ | Turf-Type Fine Fescue 3/ | 150 (170) | |
| | Perennial Ryegrass | 20 (20) | |
| | Red Top | 10 (10) | |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 20 (20) | |
| 2 Roadside Mixture 1/ | <i>Lolium arundinaceum</i> (Tall Fescue) | 100 (110) | |
| | Perennial Ryegrass | 50 (55) | |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 40 (50) | |
| | Red Top | 10 (10) | |
| 2A Salt Tolerant Roadside Mixture 1/ | <i>Lolium arundinaceum</i> (Tall Fescue) | 60 (70) | |
| | Perennial Ryegrass | 20 (20) | |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 30 (20) | |
| | <i>Festuca brevipilla</i> (Hard Fescue) | 30 (20) | |
| | <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass) | 60 (70) | |
| 3 Northern Illinois Slope Mixture 1/ | <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | 5 (5) | |
| | Perennial Ryegrass | 20 (20) | |
| | Alsike Clover 4/ | 5 (5) | |
| | <i>Desmanthus illinoensis</i> (Illinois Bundleflower) 4/ 5/ | 2 (2) | |
| | <i>Schizachyrium scoparium</i> (Little Bluestem) 5/ | 12 (12) | |
| | <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | 10 (10) | |
| | <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass) | 30 (35) | |
| | Oats, Spring | 50 (55) | |
| | Slender Wheat Grass 5/ | 15 (15) | |
| | Buffalo Grass 5/ 7/ | 5 (5) | |
| | 3A Southern Illinois Slope Mixture 1/ | Perennial Ryegrass | 20 (20) |
| | | <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | 20 (20) |
| <i>Panicum virgatum</i> (Switchgrass) 5/ | | 10 (10) | |
| <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ | | 12 (12) | |
| <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | | 10 (10) | |
| <i>Dalea candida</i> (White Prairie Clover) 4/ 5/ | | 5 (5) | |
| <i>Rudbeckia hirta</i> (Black-Eyed Susan) 5/ | | 5 (5) | |
| Oats, Spring | | 50 (55) | |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| Class – Type | Seeds | lb/acre (kg/hectare) |
|--|---|----------------------|
| 4 Native Grass 2/ 6/ | <i>Andropogon gerardi</i> (Big Blue Stem) 5/ | 4 (4) |
| | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ | 5 (5) |
| | <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | 5 (5) |
| | <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | 1 (1) |
| | <i>Panicum virgatum</i> (Switch Grass) 5/ | 1 (1) |
| | <i>Sorghastrum nutans</i> (Indian Grass) 5/ | 2 (2) |
| | Annual Ryegrass | 25 (25) |
| | Oats, Spring | 25 (25) |
| | Perennial Ryegrass | 15 (15) |
| 4A Low Profile Native Grass 2/ 6/ | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ | 5 (5) |
| | <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | 5 (5) |
| | <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | 1 (1) |
| | <i>Sporobolus heterolepis</i> (Prairie Dropseed) 5/ | 0.5 (0.5) |
| | Annual Ryegrass | 25 (25) |
| | Oats, Spring | 25 (25) |
| | Perennial Ryegrass | 15 (15) |
| 4B Wetland Grass and Sedge Mixture 2/ 6/ | Annual Ryegrass | 25 (25) |
| | Oats, Spring | 25 (25) |
| | Wetland Grasses (species below) 5/ | 6 (6) |
| <u>Species:</u> | <u>% By Weight</u> | |
| <i>Calamagrostis canadensis</i> (Blue Joint Grass) | 12 | |
| <i>Carex lacustris</i> (Lake-Bank Sedge) | 6 | |
| <i>Carex slipata</i> (Awl-Fruited Sedge) | 6 | |
| <i>Carex stricta</i> (Tussock Sedge) | 6 | |
| <i>Carex vulpinoidea</i> (Fox Sedge) | 6 | |
| <i>Eleocharis acicularis</i> (Needle Spike Rush) | 3 | |
| <i>Eleocharis obtusa</i> (Blunt Spike Rush) | 3 | |
| <i>Glyceria striata</i> (Fowl Manna Grass) | 14 | |
| <i>Juncus effusus</i> (Common Rush) | 6 | |
| <i>Juncus tenuis</i> (Slender Rush) | 6 | |
| <i>Juncus torreyi</i> (Torrey's Rush) | 6 | |
| <i>Leersia oryzoides</i> (Rice Cut Grass) | 10 | |
| <i>Scirpus acutus</i> (Hard-Stemmed Bulrush) | 3 | |
| <i>Scirpus atrovirens</i> (Dark Green Rush) | 3 | |
| <i>Bolboschoenus fluviatilis</i> (River Bulrush) | 3 | |
| <i>Schoenoplectus tabernaemontani</i> (Softstem Bulrush) | 3 | |
| <i>Spartina pectinata</i> (Cord Grass) | 4 | |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| Class – Type | Seeds | lb/acre (kg/hectare) |
|--------------|--|----------------------|
| 5 | Forb with | 1 (1) |
| | Annuals Mixture (Below) | |
| | Annuals Mixture 2/ 5/ 6/ | 10 (10) |
| | Forb Mixture (Below) | |
| | Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following: | |
| | <i>Coreopsis lanceolata</i> (Sand Coreopsis) | |
| | <i>Leucanthemum maximum</i> (Shasta Daisy) | |
| | <i>Gaillardia pulchella</i> (Blanket Flower) | |
| | <i>Ratibida columnifera</i> (Prairie Coneflower) | |
| | <i>Rudbeckia hirta</i> (Black-Eyed Susan) | |
| | Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following: | |
| | <i>Amorpha canescens</i> (Lead Plant) 4/ | |
| | <i>Anemone cylindrica</i> (Thimble Weed) | |
| | <i>Asclepias tuberosa</i> (Butterfly Weed) | |
| | <i>Aster azureus</i> (Sky Blue Aster) | |
| | <i>Symphotrichum leave</i> (Smooth Aster) | |
| | <i>Aster novae-angliae</i> (New England Aster) | |
| | <i>Baptisia leucantha</i> (White Wild Indigo) 4/ | |
| | <i>Coreopsis palmata</i> (Prairie Coreopsis) | |
| | <i>Echinacea pallida</i> (Pale Purple Coneflower) | |
| | <i>Eryngium yuccifolium</i> (Rattlesnake Master) | |
| | <i>Helianthus mollis</i> (Downy Sunflower) | |
| | <i>Heliopsis helianthoides</i> (Ox-Eye) | |
| | <i>Liatris aspera</i> (Rough Blazing Star) | |
| | <i>Liatris pycnostachya</i> (Prairie Blazing Star) | |
| | <i>Monarda fistulosa</i> (Prairie Bergamot) | |
| | <i>Parthenium integrifolium</i> (Wild Quinine) | |
| | <i>Dalea candida</i> (White Prairie Clover) 4/ | |
| | <i>Dalea purpurea</i> (Purple Prairie Clover) 4/ | |
| | <i>Physostegia virginiana</i> (False Dragonhead) | |
| | <i>Potentilla arguta</i> (Prairie Cinquefoil) | |
| | <i>Ratibida pinnata</i> (Yellow Coneflower) | |
| | <i>Rudbeckia subtomentosa</i> (Fragrant Coneflower) | |
| | <i>Silphium laciniatum</i> (Compass Plant) | |
| | <i>Silphium terebinthinaceum</i> (Prairie Dock) | |
| | <i>Oligoneuron rigidum</i> (Rigid Goldenrod) | |
| | <i>Tradescantia ohiensis</i> (Spiderwort) | |
| | <i>Veronicastrum virginicum</i> (Culver's Root) | |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

| Class – Type | Seeds | lb/acre (kg/hectare) |
|---|--|--|
| 5A Large Flower Native Forb Mixture 2/ 5/ 6/ | Forb Mixture (see below) | 5 (5) |
| | <u>Species:</u> | <u>% By Weight</u> |
| | <i>Aster novae-angliae</i> (New England Aster) | 5 |
| | <i>Echinacea pallida</i> (Pale Purple Coneflower) | 10 |
| | <i>Helianthus mollis</i> (Downy Sunflower) | 10 |
| | <i>Heliopsis helianthoides</i> (Ox-Eye) | 10 |
| | <i>Liatris pycnostachya</i> (Prairie Blazing Star) | 10 |
| | <i>Ratibida pinnata</i> (Yellow Coneflower) | 5 |
| | <i>Rudbeckia hirta</i> (Black-Eyed Susan) | 10 |
| | <i>Silphium laciniatum</i> (Compass Plant) | 10 |
| | <i>Silphium terebinthinaceum</i> (Prairie Dock) | 20 |
| | <i>Oligoneuron rigidum</i> (Rigid Goldenrod) | 10 |
| 5B Wetland Forb 2/ 5/ 6/ | Forb Mixture (see below) | 2 (2) |
| | <u>Species:</u> | <u>% By Weight</u> |
| | <i>Acorus calamus</i> (Sweet Flag) | 3 |
| | <i>Angelica atropurpurea</i> (Angelica) | 6 |
| | <i>Asclepias incarnata</i> (Swamp Milkweed) | 2 |
| | <i>Aster puniceus</i> (Purple Stemmed Aster) | 10 |
| | <i>Bidens cernua</i> (Beggarticks) | 7 |
| | <i>Eutrochium maculatum</i> (Spotted Joe Pye Weed) | 7 |
| | <i>Eupatorium perfoliatum</i> (Boneset) | 7 |
| | <i>Helenium autumnale</i> (Autumn Sneezeweed) | 2 |
| | <i>Iris virginica shrevei</i> (Blue Flag Iris) | 2 |
| | <i>Lobelia cardinalis</i> (Cardinal Flower) | 5 |
| | <i>Lobelia siphilitica</i> (Great Blue Lobelia) | 5 |
| | <i>Lythrum alatum</i> (Winged Loosestrife) | 2 |
| | <i>Physostegia virginiana</i> (False Dragonhead) | 5 |
| | <i>Persicaria pensylvanica</i> (Pennsylvania Smartweed) | 10 |
| | <i>Persicaria lapathifolia</i> (Curlytop Knotweed) | 10 |
| | <i>Pycnanthemum virginianum</i> (Mountain Mint) | 5 |
| | <i>Rudbeckia laciniata</i> (Cut-leaf Coneflower) | 5 |
| | <i>Oligoneuron riddellii</i> (Riddell Goldenrod) | 2 |
| | <i>Sparganium eurycarpum</i> (Giant Burreed) | 5 |
| 6 Conservation Mixture 2/ 6/ | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring | 5 (5) 2 (2) 5 (5) 15 (15) 48 (55) |
| 6A Salt Tolerant Conservation Mixture 2/ 6/ | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass) | 5 (5) 2 (2) 5 (5) 15 (15) 48 (55) 20 (20) |
| 7 Temporary Turf Cover Mixture | Perennial Ryegrass Oats, Spring | 50 (55) 64 (70) |

Notes:

- 1/ Seeding shall be performed when the ambient temperature has been between 45 °F (7 °C) and 80 °F (27 °C) for a minimum of seven (7) consecutive days and is forecasted to be the same for the next five (5) days according to the National Weather Service.
- 2/ Seeding shall be performed in late fall through spring beginning when the ambient temperature has been below 45 °F (7 °C) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 °F (27 °C) according to the National Weather Service.
- 3/ Specific variety as shown in the plans or approved by the Engineer.
- 4/ Inoculation required.
- 5/ Pure Live Seed (PLS) shall be used.
- 6/ Fertilizer shall not be used.
- 7/ Seed shall be primed with KNO₃ to break dormancy and dyed to indicate such.

Seeding will be inspected after a period of establishment. The period of establishment shall be six (6) months minimum, but not to exceed nine (9) months. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department.”

SHORT TERM AND TEMPORARY PAVEMENT MARKINGS (BDE)

Effective: April 1, 2024

Revised: April 2, 2024

Revise Article 701.02(d) of the Standard Specifications to read:

“(d) Pavement Marking Tapes (Note 3)1095.06”

Add the following Note to the end of Article 701.02 of the Standard Specifications:

“Note 3. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape.”

Revise Article 703.02(c) of the Standard Specifications to read:

“(c) Pavement Marking Tapes (Note 1)1095.06”

Add the following Note to the end of Article 703.02 of the Standard Specifications:

“Note 1. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape.”

Revise Article 1095.06 of the Standard Specifications to read:

“**1095.06 Pavement Marking Tapes.** Type I white or yellow marking tape shall consist of glass spheres embedded into a binder on a foil backing that is precoated with a pressure sensitive adhesive. The spheres shall be of uniform gradation and distributed evenly over the surface of the tape.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

Type IV tape shall consist of white or yellow tape with wet reflective media incorporated to provide immediate and continuing retroreflection in wet and dry conditions. The wet retroreflective media shall be bonded to a durable polyurethane surface. The patterned surface shall have approximately 40 ± 10 percent of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed reflective elements or particles.

Blackout tape shall consist of a matte black, non-reflective, patterned surface that is precoated with a pressure sensitive adhesive.

- (a) Color. The white and yellow markings shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

| Color | Daylight Reflectance %Y |
|----------|-------------------------|
| White | 65 min. |
| Yellow * | 36 - 59 |

*Shall match Aerospace Material Specification Standard 595 33538 (Orange Yellow) and the chromaticity limits as follows.

| | | | | |
|---|-------|-------|-------|-------|
| x | 0.490 | 0.475 | 0.485 | 0.530 |
| y | 0.470 | 0.438 | 0.425 | 0.456 |

- (b) Retroreflectivity. The white and yellow markings shall be retroreflective. Reflective values measured in accordance with the photometric testing procedure of ASTM D 4061 shall not be less than those listed in the table below. The coefficient of retroreflected luminance, R_L , shall be expressed as average millicandelas/footcandle/sq ft (millicandelas/lux/sq m), measured on a 3.0 x 0.5 ft (900 mm x 150 mm) panel at 86 degree entrance angle.

| Coefficient of Retroreflected Luminance, R_L , Dry | | | | | |
|--|-------|--------|-------------------|-------|--------|
| Type I | | | Type IV | | |
| Observation Angle | White | Yellow | Observation Angle | White | Yellow |
| 0.2° | 2700 | 2400 | 0.2° | 1300 | 1200 |
| 0.5° | 2250 | 2000 | 0.5° | 1100 | 1000 |

Wet retroreflectance shall be measured for Type IV under wet conditions according to ASTM E 2177 and meet the following.

| Wet Retroreflectance, Initial R_L | |
|-------------------------------------|------------------|
| Color | R_L 1.05/88.76 |
| White | 300 |
| Yellow | 200 |

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

- (c) Skid Resistance. The surface of Type IV and blackout markings shall provide a minimum skid resistance of 45 BPN when tested according to ASTM E 303.
- (d) Application. The pavement marking tape shall have a precoated pressure sensitive adhesive and shall require no activation procedures. Test pieces of the tape shall be applied according to the manufacturer's instructions and tested according to ASTM D 1000, Method A, except that a stiff, short bristle roller brush and heavy hand pressure will be substituted for the weighted rubber roller in applying the test pieces to the metal test panel. Material tested as directed above shall show a minimum adhesion value of 750 g/in. (30 g/mm) width at the temperatures specified in ASTM D 1000. The adhesive shall be resistant to oils, acids, solvents, and water, and shall not leave objectionable stains or residue after removal. The material shall be flexible and conformable to the texture of the pavement.
- (e) Durability. Type IV and blackout tape shall be capable of performing for the duration of a normal construction season and shall then be capable of being removed intact or in large sections at pavement temperatures above 40 °F (4 °C) either manually or with a roll-up device without the use of sandblasting, solvents, or grinding. The Contractor shall provide a manufacturer's certification that the material meets the requirements for being removed after the following minimum traffic exposure based on transverse test decks with rolling traffic.
- (1) Time in place - 400 days
 - (2) ADT per lane - 9,000 (28 percent trucks)
 - (3) Axle hits - 10,000,000 minimum

Samples of the material applied to standard specimen plates will be measured for thickness and tested for durability in accordance with ASTM D 4060, using a CS-17 wheel and 1000-gram load, and shall meet the following criteria showing no significant change in color after being tested for the number of cycles indicated.

| Test | Type I | Type IV | Blackout |
|--------------------------------------|-----------|--|--|
| Minimum Initial Thickness, mils (mm) | 20 (0.51) | 65 (1.65) ^{1/} 20 (0.51) ^{2/} | 65 (1.65) ^{1/} 20 (0.51) ^{2/} |
| Durability (cycles) | 5,000 | 1,500 | 1,500 |

1/ Measured at the thickest point of the patterned surface.

2/ Measured at the thinnest point of the patterned surface.

The pavement marking tape, when applied according to the manufacturer's recommended procedures, shall be weather resistant and shall show no appreciable fading, lifting, or shrinkage during the useful life of the marking. The tape, as applied, shall be of good appearance, free of cracks, and edges shall be true, straight, and unbroken.

- (f) Sampling and Inspection.
- (1) Sample. Prior to approval and use of Type IV pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements

as set forth herein. The independent laboratory test report shall state the lot tested, the manufacturer's name, and the date of manufacture.

After initial approval by the Department, samples and certification by the manufacturer shall be submitted for each subsequent batch of Type IV tape used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, the manufacturer's name, and the date of manufacture.

- (2) Inspection. The Contractor shall provide a manufacturer's certification to the Engineer stating the material meets all requirements of this specification. All material samples for acceptance tests shall be taken or witnessed by a representative of the Bureau of Materials and shall be submitted to the Engineer of Materials, 126 East Ash Street, Springfield, Illinois 62704-4766 at least 30 days in advance of the pavement marking operations."

SIGN PANELS AND APPURTENANCES (BDE)

Effective: January 1, 2025

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

"Steel support channels shall be according to ASTM A 653 (A 653M) (mild strip), Standard 720001, and galvanized according to AASHTO M 232, Class B 2 after forming."

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."

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.

SAHARA WOODS STATE FISH AND WILDLIFE AREA PARK ROADS
SECTION SAHARA WOOD O&C
SALINE COUNTY
CONTRACT NO. 46946

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 (BDE)

Effective: April 1, 2021

Revised: November 2, 2023

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

“STATEMENTS AND PAYROLLS

The payroll records shall include the worker’s name, social security number, last known address, telephone number, email address, classification(s) of work actually performed, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof), daily and weekly number of hours actually worked in total, deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit certified payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers, last known addresses, telephone numbers, and email addresses shall not be included on weekly submittals. Instead, the payrolls need only include an identification number for each employee (e.g., the last four digits of the employee’s social security number). 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.”

STATE CONTRACTS. 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 Illinois Prevailing Wage Portal in compliance with the State Prevailing Wage Act (820 ILCS 130). The portal can be found on the IDOL website at <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx>. 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.”

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.”

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

Revised: January 2, 2025

The following applies to all Disadvantaged Business Enterprise (DBE) trucks on the project, whether they are utilized for DBE goal credit or not.

The Contractor shall notify the Engineer at least three days prior to DBE trucking activity.

The Contractor shall submit a weekly report of DBE trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) to the Engineer on Department form “SBE 723” within ten business days following the reporting period. The reporting period shall be Sunday through Saturday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

WOOD SIGN SUPPORT (BDE)

Effective: November 1, 2023

Add the following to Article 730.02 of the Standard Specifications:

“(c) Preservative Treatment 1007.12”

Revise the first paragraph of Article 730.03 of the Standard Specifications to read:

“ **730.03 General.** Wood sign supports shall be treated. When the 4 x 6 in. (100 x 150 mm) posts are used, they shall be modified to satisfy the breakaway requirements by drilling 1 1/2 in. (38 mm) diameter holes centered at 4 and 18 in. (100 and 450 mm) above the groundline and perpendicular to the centerline of the roadway.”

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Revised: January 1, 2025

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports1106.02”

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 Articles 1106.02(g), 1106.02(k), and 1106.02(l) 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.”

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within **50** working days.

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.