# 85

August 1, 2025 Letting

# Notice to Bidders, Specifications and Proposal



Contract No. 97863 ST. CLAIR County Section 21-00028-00-BT (Mascoutah) Route L&N RAILWAY TRAIL District 8 Construction Funds

| Prepared by                                  | s    |
|--|------|
| Checked by                                   |      |
| (Printed by authority of the State of Illing | ois) |



#### **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. August 1, 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. 97863 ST. CLAIR County Section 21-00028-00-BT (Mascoutah) Route L&N RAILWAY TRAIL District 8 Construction Funds

Construction of a Multi-Use Trail along L&N Avenue from IL 4 to South Railway Street in Mascoutah. Includes lime modified soils, sidewalks, storm sewers, and seeding.

- 3. INSTRUCTIONS TO BIDDERS. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.
  - (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the Illinois Department of Transportation

Gia Biagi, Secretary

#### CONTRACT 97863

#### 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)

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

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#### SPECIAL PROVISIONS

#### SECTION: 21-00028-00-BT CONTRACT: 97863 MASCOUTAH, ILLINOIS

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#### **BDE SPECIAL PROVISIONS**

The following special provisions indicated by an "X" are applicable to this contract. An \* indicates a new or revised special provision for the letting.

| <u>File</u><br>Nam | <u>e Pg.</u>   |                        | Special Provision Title   | <b>Effective</b>      | <b>Revised</b> |
|--------------------|----------------|------------------------|---|-----------------------|----------------|
| 800                | 199            |                        | Accessible Pedestrian Signals (APS)                               | April 1 2003          | Jan 1 2022     |
| 802                | 000<br>074     | H                      | Aggregate Subgrade Improvement                                    | April 1, 2000         | April 1, 2022  |
| 801                | 192            | H                      | Automated Flagger Assistance Device                               | Jan 1 2008            | April 1, 2023  |
| 801                | 173            | H                      | Bituminous Materials Cost Adjustments                             | Nov 2 2006            | Aug 1 2017     |
| 804                | 126            | H                      | Bituminous Surface Treatment with Fog Seal                        | Jan 1 2020            | .lan 1 2022    |
| 802                | 20             | H                      | Bridge Demolition Debris  | July 1, 2009          | 0411. 1, 2022  |
| 505                | 531            | H                      | Building Removal  | Sept. 1, 1990         | Aug. 1, 2022   |
| 502                | 261            | П                      | Building Removal with Asbestos Abatement                          | Sept. 1, 1990         | Aug. 1. 2022   |
| 804                | 160 83         | $\overline{\boxtimes}$ | Cement. Finely Divided Minerals. Admixtures. Concrete. and Mortar | Jan. 1, 2025          | <b>J</b> , -   |
| 803                | 384 94         | $\overline{\boxtimes}$ | Compensable Delay Costs   | June 2, 2017          | April 1, 2019  |
| 801                | 198            |                        | Completion Date (via calendar days)                               | April 1, 2008         | • •            |
| 801                | 199            |                        | Completion Date (via calendar days) Plus Working Days             | April 1, 2008         |                |
| 804                | 461            |                        | Concrete Barrier  | Jan. 1, 2025          |                |
| 804                | 153            |                        | Concrete Sealer   | Nov. 1, 2023          |                |
| 802                | 261 98         | $\boxtimes$            | Construction Air Quality – Diesel Retrofit                        | June 1, 2010          | Jan. 1, 2025   |
| 800                | 029 100        | $\boxtimes$            | Disadvantaged Business Enterprise Participation                   | Sept. 1, 2000         | Jan. 2, 2025   |
| * 804              | 467 103        | $\boxtimes$            | Erosion Control Blanket   | Aug. 1, 2025          |                |
| 802                | 229 106        | $\boxtimes$            | Fuel Cost Adjustment  | April 1, 2009         | Aug. 1, 2017   |
| 804                | 152            |                        | Full Lane Sealant Waterproofing System                            | Nov. 1, 2023          |                |
| 804                | 147            |                        | Grading and Shaping Ditches                                       | Jan 1, 2023           |                |
| 804                | 433            |                        | Green Preformed Thermoplastic Pavement Markings                   | Jan. 1, 2021          | Jan. 1, 2022   |
| 804                | 456 109        | $\square$              | Hot-Mix Asphalt   | Jan. 1, 2024          | Jan. 1, 2025   |
| 804                | 146            |                        | Hot-Mix Asphalt – Longitudinal Joint Sealant                      | Nov. 1, 2022          | Aug. 1, 2023   |
| 804                | 138 111        |                        | Illinois Works Apprenticeship Initiative – State Funded Contracts | June 2, 2021          | April 2, 2024  |
| * 804              | 150            |                        | Mechanically Stabilized Earth Retaining Walls                     | Aug. 1, 2023          | Aug. 1, 2025   |
| 804                | 164 112        |                        | Pavement Marking Inspection                                       | April 1, 2025         |                |
| * 804              | 168            |                        | Pavement Patching   | Aug. 1, 2025          |                |
| 804                | 141 113        | M                      | Performance Graded Asphalt Binder                                 | Jan 1, 2023           |                |
| 804                | 159            |                        | Preformed Plastic Pavement Marking                                | June 2, 2024          | 1 4 0000       |
| 342                | 261            |                        | Railroad Protective Liability Insurance                           | Dec. 1, 1986          | Jan. 1, 2022   |
| 804                | +55 118        |                        | Removal and Disposal of Regulated Substances                      | Jan. 1, 2024          | April 1, 2024  |
| 804                | 145 IZU        | A                      | Seeding<br>Short Term and Temperary Devemant Markinga             | NOV. 1, 2022          | April 2 2024   |
| 004<br>207         | +07<br>160 106 |                        | Sinon Term and Temporary Pavement Markings                        | April 1, 2024         | April 2, 2024  |
| * 804              | 160            |                        | Sign Failers and Appulteriances                                   | Jan. 1, 2025          | April 1, 2025  |
| 804                | 148            | H                      | Source of Supply and Quality Requirements                         | Aug. 1, 2023          |                |
| 803                | 840<br>840     | H                      | Speed Display Trailer   | Δnril 2, 2023         | lan 1 2022     |
| 801                | 127 127        |                        | Steel Cost Adjustment   | $\Delta nril 2, 2014$ | lan 1 2022     |
| 803                | 897 130        |                        | Subcontractor and DBE Payment Reporting                           | April 2, 2004         | 0an. 1, 2022   |
| 803                | 391 131        |                        | Subcontractor Mobilization Payments                               | Nov 2 2017            | April 1 2019   |
| * 804              | 463 132        |                        | Submission of Bidders List Information                            | Jan. 2, 2025          | Mar. 2, 2025   |
| 804                | 437 133        |                        | Submission of Payroll Records                                     | April 1, 2021         | Nov. 2, 2023   |
| 804                | 135            | Ē                      | Surface Testing of Pavements – IRI                                | Jan. 1, 2021          | Jan. 1. 2023   |
| 804                | 165 135        | $\overline{\boxtimes}$ | Surveying Services  | April 1, 2025         | - ,            |
| 804                | 166            | Ē                      | Temporary Rumble Strips   | April 1, 2025         |                |
| * 804              | 170            |                        | Traffic Signal Backplate  | Aug. 1, 2025          |                |
| 203                | 338 136        | $\overline{\boxtimes}$ | Training Special Provisions                                       | Oct. 15, 1975         | Sept. 2, 2021  |
| 804                | 129            |                        | Ultra-Thin Bonded Wearing Course                                  | April 1, 2020         | Jan. 1, 2022   |
| 804                | 139 139        | $\boxtimes$            | Vehicle and Equipment Warning Lights                              | Nov. 1, 2021          | Nov. 1, 2022   |
| 804                | 458            |                        | Waterproofing Membrane System                                     | Aug. 1, 2024          |                |
| 803                | 302 140        | $\square$              | Weekly DBE Trucking Reports                                       | June 2, 2012          | Jan. 2, 2025   |
| 804                | 454 141        | $\boxtimes$            | Wood Sign Support   | Nov. 1, 2023          |                |
| 804                | 427            |                        | Work Zone Traffic Control Devices                                 | Mar. 2, 2020          | Jan. 1, 2025   |
| 800                | 071 142        | $\boxtimes$            | Working Days  | Jan. 1, 2002          |                |

#### **SPECIAL PROVISIONS**

#### SECTION: 21-00028-00-BT CONTRACT: 97863 MASCOUTAH, ILLINOIS

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 of Materials" in effect on the date of the invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein and the "Standard Specifications for Water and Sewer Construction in Illinois", 8<sup>th</sup> Edition which apply to and govern the construction of the L&N Railway Trail, Section 21-00028-00-BT, Mascoutah, Illinois, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

#### **DESCRIPTION OF WORK**

The proposed trail project is located adjacent to L&N Avenue from IL 4 to South Railway Street and along the existing L&N Railway ROW from South Railway Street to 10<sup>th</sup> Street in Mascoutah, Illinois. The project length is 5,292 feet (1.002 miles).

The work on this project consists of removals, earthwork, lime modified soils, aggregate base, HMA binder and surface courses, sidewalk, driveway pavement, storm sewer and drainage structures, thermoplastic pavement markings, seeding and all incidental and collateral work necessary to complete the work in the above-described Section according to the plans, specifications and special provisions.

#### COORDINATION OF CONTRACT DOCUMENTS

If a conflict exists between the "Standard Specifications for Road and Bridge Construction" and the "Standard Specifications for Water and Sewer Construction in Illinois", the "Standard Specifications for Road and Bridge Construction" shall govern.

#### SHOP DRAWINGS

The Contractor shall submit shop drawings of the following items according to Articles 1042.03(b) and 105.04 of the "Standard Specifications for Road and Bridge Construction":

Precast Concrete Inlets Precast Concrete Manholes Rectangular Rapid Flashing Beacons

Submit shop drawings for review and approval to:

Mr. Sal Elkott, City Engineer

City of Mascoutah 3 West Main Street Mascoutah, Illinois 62258

A maximum of two reviews by the Engineer will be provided for each shop drawing submittal. If any additional reviews are required, the Contractor shall pay the Engineer for all costs incurred at an hourly rate of \$150. Payment for additional reviews shall be made directly to the City.

#### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

The Contractor and Owner will be required to complete a Notice of Intent (NOI) on-line form and the Contractor's Certification Statement (attached), in compliance with the NPDES Phase II guidelines. These forms will be completed by the Engineer, prior to the pre-construction meeting. Work may commence 30 calendar days after the NOI form is submitted to the Illinois Environmental Protection Agency for the purpose of obtaining a General Construction Permit.

The Storm Water Pollution Prevention Plan, the General Permit, and the Contractor's Certification Statement must be kept on site during working hours. Compliance with this special provision shall be considered as included in the contract unit prices for the various items of work involved.

#### CONSTRUCTION CONTRACTS

The successful bidder, as a condition of this contract, must submit evidence that he has conducted a pre-job conference with his Subcontractors and their employees, or the employees' duly recognized representatives and union officials, to determine employee jurisdiction, job assignment and work schedules. This requirement is to promote industrial harmony and to eliminate work stoppages and jurisdictional disputes. The pre-job conference shall be conducted at least 14 calendar days prior to the commencement of any construction.

#### SAFETY AND HEALTH

The Contractor shall be responsible for enforcing all O.S.H.A. Safety and Health Standards pertaining to the construction industry as established by the United States Department of Labor, Occupational Safety and Health Administration. Such standards include, but are not limited to, 29 CFR 1910 and 1926.

#### SAFETY AND PROTECTION

A. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety and precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- 1. All employees on the work and other persons and organizations who may be affected thereby;
- 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- 3. Other property at the site adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons and property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the Work may affect them and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 2. or 3. caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts either of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or anyone employed by either of them or anyone for acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR that the Work is acceptable.

- B. CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent, unless otherwise designated in writing by CONTRACTOR to OWNER.
- C. In EMERGENCIES affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instructions or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt, written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

#### SOIL BORINGS

A geotechnical investigation study for the Project has been prepared by Millennia Professional Ser vices, Ltd. dated December 12, 2023 and is included at the end of the Special Provisions. This report is provided solely as a reference for the contractor.

#### SEQUENCE OF CONSTRUCTION OPERATIONS

The Contractor shall conduct his work within the approved Sequence of Construction Operations at all times. The work shall be done in a manner that will minimize the inconvenience to local traffic.

The Contractor shall conduct his operations to ensure local access to all properties throughout the project limits according to Article 107.09 and Section 701 and 703 of the "Standard Specifications for Road and Bridge Construction". The traffic control signage must be in place prior to beginning construction.

#### SUGGESTED SEQUENCE

During construction, the Contractor will be required to maintain access to all properties affected by this work. AGGREGATE FOR TEMPORARY ACCESS according to Section 402 of the "Standard Specifications for Road and Bridge Construction" will be used for this purpose.

The Contractor will not be allowed to begin subsequent construction operations until the preceding work is substantially complete. The construction sequence shall be compressed as much as possible to minimize the inconvenience to local traffic.

Unless authorized by the Engineer, the Contractor shall complete the construction in the following suggested sequence:

#### STAGE 1:

Complete removals, earthwork, drainage appurtenances, subbase, concrete gutter and PCC sidewalks on the new shared use path alignment.

#### STAGE 2:

Concurrent with the work listed in Stage 1, the parking lot and L&N Trailhead alignment can be completed.

#### STAGE 3:

Complete pavement markings, signage, seeding, ornamental railing, and remaining checklist items.

Seeding operations shall be completed as soon as possible to minimize erosion potential. TEMPORARY EROSION CONTROL SEEDING will be paid for according to Section 280 of the "Standard Specifications for Road and Bridge Construction". The Contractor may submit an alternate sequence of operations and traffic control plan that would expedite construction and still maintain traffic control. Any and all changes to these plans must be submitted in writing and approved in advance by the Engineer. No additional compensation will be allowed if alternate plans are approved.

#### CONTRACTOR ACCESS

At closure locations, where Type III barricades are installed in a manner that will not allow Contractor access to the project without relocation of one or more of the barricades, the arrangement of the barricades at the beginning of each workday may be relocated, when approved by the Engineer, in the manner shown on Highway Standard 701901. At the end of each workday, the barricades shall be moved and the road shall be closed to traffic.

The cost incurred by the Contractor in complying with this requirement shall be considered included in the contract unit prices bid for the carious items of traffic control work involved and no additional compensation will be allowed.

#### TRAFFIC CONTROL PLAN

Traffic control shall be according to the applicable Sections 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", these special provisions, and all special details and Highway Standards contained herein and on the plans.

At the preconstruction meeting, the Contractor shall furnish the name of the individual in his/her direct employ who is responsible for the installation and maintenance of the traffic control for this project. If the actual installation and maintenance are to be accomplished by the Subcontractor, consent shall be requested of the Engineer at the time of the preconstruction meeting according to Article 108.01 of the "Standard Specifications for Road and Bridge Construction". This shall not relieve the Contractor of the foregoing requirement for a responsible individual in his direct employ. The Department will provide the Contractor the name of its representative who will be responsible for the observation of the Traffic Control Plan.

The Contractor shall furnish, erect, maintain and remove all warning signs, flags, barricades and lights according to Article 107.14 and Sections 701 and 703 of the "Standard Specifications for Road and Bridge Construction", the latest edition of the "Manual of Uniform Traffic Control Devices for Construction and Maintenance Operations", the Special Provisions, and/or as directed by the Engineer.

Articles 107.09 and 107.14 and Sections 701 and 703 of the "Standard Specifications for Road and Bridge Construction" and the following Highway Standards relating to traffic control apply to this contract:

| 701001 | 701006 | 701301 | 701901 |
|--------|--------|--------|--------|
| 701501 | 107801 |        |        |

Illinois Route 4 shall be kept open to traffic at all times. Short-term, daytime lane closures will be allowed on Illinois Route 4 when workers are present according to Highway Standard 701501.

In addition, the following special provision(s) will also govern traffic control for this project:

# SEQUENCE OF CONSTRUCTION OPERATIONS CONTRACTOR ACCESS

#### EARTH EXCAVATION

This work shall be constructed according to Section 202 of the "Standard Specifications for Road and Bridge Construction," except as modified herein:

At locations where existing bituminous treated surface lies at or below the elevation of the proposed subgrade, the Contractor shall scarify the existing surface, reducing all particles to a size not larger than 4 in. in the largest dimension and recompact the existing surface prior to placing earth embankment or other subbase material.

This work will be paid for at the contract unit price per cubic yard for EARTH EXCAVATION, measured as specified in Article 202.07 of the "Standard Specifications for Road and Bridge Construction".

#### EMBANKMENT

This work shall consist of the construction of embankments according to Section 205 of the "Standard Specifications for Road and Bridge Construction", except as modified herein.

Refer to soil borings for additional information.

Material, which is proposed for use by the Contractor to be used for embankment construction, must be inspected and approved by the Engineer. In order to be approved for use as embankment material, it must meet all applicable requirements of Sections 202, 203, 204, 205, and 502 of the "Standard Specifications for Road and Bridge Construction", and meet the following requirements:

- 1. It must fall in one of the following Highway Research Board Classifications: A-1, A-2, A-3, A-4, A-6, or A-7-6.
- 2. It shall have a Liquid Limit of 49 or less.
- 3. Any A-4, A-6, or A-7-6 material to be used as borrow for embankment construction shall not have an organic content greater than 7 percent.
- 4. Classification of the material for points 1 and 2 shall be determined according to the latest AASHTO Designation: M 145.

5. When tested for density in place, all soil classified as A-4 shall not contain more than 100 percent of optimum moisture content determined according to AASHTO T-99.

The outside 10 ft. of those portions of the embankment that will be permanently exposed in the completed roadway shall be constructed using native materials of a classification that will support vegetation and contain a plasticity index of 12 or greater as directed by the Engineer.

Those portions of the lime modified soil layer shall be constructed with a minimum thickness of 18 in. of "reactive" soil as defined by Article 1009.02 of the "Standard Specifications for Road and Bridge Construction".

Existing slopes steeper than 5H:1V shall be benched to provide a level surface prior to placing any fill material.

This work will not be paid for separately but shall be considered as included in the contract unit prices bid for the various items of earthwork involved.

#### TRENCH BACKFILL

This work shall be constructed according to Section 208 of the "Standard Specifications for Road and Bridge Construction", except as modified herein:

Fine aggregate according to Article 1003.04 may be used for bedding only, except as follows: Fine aggregate will be required for trench backfill within 2 ft. of all gas mains and gas service lines that are exposed during trenching operations.

Material for trench backfill shall be coarse aggregate gradation CA 6, CA 10 or CA 18 as specified in Article 1004.05.

Trench backfill material shall be compacted according to Method 1, as specified in Article 550.07(a) of the "Standard Specifications for Road and Bridge Construction".

This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL, measured as specified in Article 208.03 of the "Standard Specifications for Road and Bridge Construction".

#### TOPSOIL FURNISH AND PLACE, 4"

This work shall consist of furnishing and placing topsoil according to Section 211 of the "Standard Specifications for Road and Bridge Construction".

Material shall meet the requirements of Article 1081.05 (a) of the "Standard Specifications for Road and Bridge Construction" except that topsoil shall have an organic content between three and ten percent as determined by the "loss on ignition" test method described in AASHTO T 267. The Contractor shall provide a certificate from an

independent laboratory certifying compliance with all applicable material specifications.

The minimum thickness of topsoil shall be 4 in.

This work will be paid for at the contract unit price per square yard for TOPSOIL FURNISH AND PLACE, 4".

#### **STONE RIPRAP, CLASS A3**

This work shall consist of furnishing, transporting and placing a protective course of stone as shown on the plans, according to Section 281 of the "Standard Specifications for Road and Bridge Construction", except as modified herein.

Filter fabric for use with riprap is required and shall be installed according to Section 282 of the "Standard Specifications for Road and Bridge Construction". A fabric weight of 6 oz. / sq. yd. shall be used.

The stone riprap shall be gradation RR 3, quality designation A. The minimum thickness of riprap shall be 12 in.

This work will be paid for at the contract unit price per square yard for STONE RIPRAP, CLASS A3, which price shall include all excavation and material necessary for proper installation of the riprap. Filter Fabric will be measured and paid for separately as specified in Section 282 of the "Standard Specifications for Road and Bridge Construction".

#### PROCESSING MODIFIED SOIL, THICKNESS SPECIFIED

This work shall consist of constructing a modified soil layer composed of soil, water and lime according to Section 302 of the "Standard Specifications for Road and Bridge Construction".

The soil modifier shall consist of dry lime at the locations shown on the plans, and as directed by the Engineer. The estimated lime-to-soil (by dry weight) ratio is 5 percent. Areas of silty subgrade materials containing less than 10 percent clay is estimated to require a mixture of 3 percent lime and 7 percent fly ash.

The application of modifiers shall be accomplished by slurry placement method or with a mechanical spreader capable of applying the modifier uniformly and minimizing the airborne release of dry modifiers, or other method approved by the Engineer.

This work shall be paid for at the contract unit price per square yard for PROCESSING MODIFIED SOIL, 12".

#### PORTLAND CEMENT CONCRETE PAVEMENT, THICKNESS SPECIFIED

This work shall consist of constructing a Portland cement concrete pavement according to Section 420 of the "Standard Specifications for Road and Bridge Construction," except as modified herein.

All references to Sections or Articles in this specification shall be understood to mean a specified Section or Article of the "Standard Specifications for Road and Bridge Construction".

- Article 420.03(b). A formless paver will not be required.
- Article 420.03(c). A mechanical concrete spreader will not be required.
- Article 420.03(d). A finishing machine will not be required.
- Article 420.03(e). A mechanical longitudinal float will not be required.
- Article 420.03(f). A concrete finisher float will not be required.
- Article 420.03(h). Power driven finishing machines, including vibratory screeds and truss-type vibratory screeds, which are specifically designed for finishing concrete pavement and meet the approval of the Engineer, will be allowed.

Hand held fogging equipment capable of spraying a uniform application of membrane curing compound and maintaining constant pressure meeting the approval of the Engineer, will be allowed.

Article 420.09(a) (1). Revise this Article as follows:

After the concrete has been struck off, it shall be given the required consolidation by the vibratory method or by other means which will obtain a uniform and satisfactory density throughout the pavement. If the vibratory method is used, the vibrating impulses shall be applied directly to the concrete through an apparatus especially designed for this purpose in a manner that the vibratory impulses are transmitted through the concrete mass with sufficient intensity to consolidate it throughout its entire depth and width. Not more than one pass of the vibratory equipment shall be made through the pavement.

Article 420.09(a) (3). Revise the first sentence of this Article to read as follows:

Vibrating screed. An approved vibrating screed may be used to strike off, consolidate and finish pavement.

Article 420.09(b). Longitudinal Float Hand Method will be permitted if approved by the Engineer.

- Article 420.09(e). Type B final finish shall be used throughout the project unless directed otherwise by the Engineer.
- Article 420.20. Revise the first paragraph of this Article to read as follows:

Basis of Payment. This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE PAVEMENT, of the thickness specified.

#### TIE BARS & REINFORCEMENT BARS

This work shall consist of furnishing and placing tie bars and reinforcement bars in concrete pavement and concrete curb and gutter according to Sections 420 and 606 of the "Standard Specifications for Road and Bridge Construction", except as modified herein:

All tie bars and reinforcement bars used in Portland cement concrete pavement and concrete curb and gutter shall be epoxy coated.

This work will not be paid for separately, but shall be included in the contract unit price of the various concrete pavement and concrete curb and gutter items for which the tie bars and reinforcement bars are required.

#### **EXPANSION JOINTS**

This work shall consist of constructing expansion joints in concrete driveway pavement, parking lot pavement, and sidewalk according to Articles 423.07 and 424.07 of the "Standard Specifications for Road and Bridge Construction" and Highway Standard 424001 except as modified herein:

Expansion joints required under Article 423.07 and 424.07(b) shall be preformed fiber joint filler according to Article 1051.04 of the "Standard Specifications for Road and Bridge Construction" and shall have a perforated tear off wood or plastic strip to provide a uniform 3/4 in. reservoir/channel for the required sealant.

Expansion joints required under Article 424.07(a) shall consist of preformed flexible foam expansion joint filler according to Article 1051.09 of the "Standard Specifications for Road and Bridge Construction" and shall have a pre-scored removable strip to provide a uniform 1/2 in. reservoir/channel for the required sealant.

Expansion joint filler and backer rod materials shall be a non-impregnated type that will not bond with the sealant.

Expansion joints shall be sealed with self-leveling (pour grade), or nonsag (gun) grade urethane sealant. The color of the sealant shall be limestone, unless otherwise approved by the Engineer.

This work will not be paid separately, but shall be included in the contract unit price of the various concrete items for which the expansion joints are required.

#### DETECTABLE WARNINGS

This work shall consist of constructing detectable warning surfaces in curb ramps and other locations shown on the plans according to Articles 424.09 of the "Standard Specifications for Road and Bridge Construction" and Highway Standard 424001, 424006, 424011, 424016, 424021 and 424026, and as modified herein:

Materials shall be following type:

<u>Cast-in-Place</u> panel paver system. Paver units shall consist of a homogeneous glass and carbon-reinforced composite which is colorfast and UV stable.

Color shall be red.

Panel sections shall be of equal size and dimensions with no fragments unless approved by the Engineer.

Detectable warning panels shall be protected when applying curing compound to the adjoining concrete sidewalk. Any overspray on the panels shall be cleaned immediately to the satisfaction of the Engineer.

Joints between panels and around the perimeter of the panels shall be caulked with a self-leveling (pour grade), or nonsag (gun) grade urethane sealant. The color of the sealant shall be limestone, unless otherwise approved by the Engineer.

The concrete thickness under the panels shall be increased 1 inch. The subgrade shall be well-drained and properly compacted. Forms shall be positioned for proper grade, slope, and uniform slab thickness.

Detectable warning panels shall be placed as shown in the drawings and shall have visual contrast with the adjoining concrete surface. Adequate drainage shall be provided to prevent the accumulation of water and debris at the bottom of the ramp.

Panels shall be installed immediately in fresh concrete and adjusted to grade to ensure 100% surface contact with square edges of panels butted tightly together. The base of the truncated domes shall be set flush with the adjoining concrete surface. The maximum tolerance between the panels and the adjoining surface is 1/16 inch. Immediately after placement, the panels shall be checked for slope, elevation and proper grade. The concrete around the panels shall be edged with 1/8 in. radius edger and finished according to the contract specifications.

This work will be paid for at the contract unit price per square foot for DETECTABLE WARNINGS as specified herein.

#### PIPE CULVERT REMOVAL

This work shall consist of the removal and satisfactory disposal of existing pipe culverts, and end sections according to Section 501 of the "Standard Specifications for Road and Bridge Construction."

The Contractor shall dispose of all culverts according to Article 202.03 of the "Standard Specifications for Road and Bridge Construction".

Trenches resulting from the removal of existing culverts shall be backfilled according to Article 550.07 of the "Standard Specifications for Road and Bridge Construction" and according to the special provision for TRENCH BACKFILL. Trench backfill for pipe culvert removal, if required, will not be measured separately for payment.

This work will be paid for at the contract unit price per foot for PIPE CULVERT REMOVAL, of concrete pipe and diameter specified on the plans, measured in place, from end section to storm structure.

#### STORM SEWERS, CLASS A, TYPE AND DIAMETER SPECIFIED

This work shall consist of constructing storm sewers of the required type and inside diameter at locations shown on the plans according to Section 550 of the "Standard Specifications for Road and Bridge Construction".

All storm sewers shall be Reinforced Concrete Culvert, Storm Drain and Sewer Pipe according to Article 1042.06 of the "Standard Specifications for Road and Bridge Construction". Each pipe section shall be sealed with a preformed flexible rubber gasket. The gasket shall be confined in a recessed groove cast into the spigot of the pipe, which will hold the gasket in place when the joint is assembled, forming a watertight seal, according to ASTM C443.

The cost incurred by the Contractor in complying with this requirement shall be considered as included in the contract unit price bid for STORM SEWERS, CLASS A, of the type and diameter specified.

#### INLETS, SPECIAL, TYPE SPECIFIED

This work shall consist of constructing precast inlets as shown on the plans, together with the necessary cast iron frames and grates according to Section 602 of the "Standard Specifications for Road and Bridge Construction".

The inside dimensions of the INLETS, SPECIAL, by type, shall measure as follows:

Type 3 3 ft. x 3 ft. square.

Each structure shall have a precast reinforced concrete flat slab top. The Contractor shall submit shop drawings to the Engineer for approval according to Articles 1042.03(b) and 105.04 of the "Standard Specifications for Road and Bridge Construction".

The required casting to be set into the precast concrete lid shall be a light-duty Type 8 frame and grate

This work will be paid for at the contract unit price per each for INLETS, SPECIAL, of the type specified, which price shall include furnishing and installing the required frame and grate, all excavation and backfill, connecting and grouting the proposed storm sewers, pouring the concrete invert.

#### CONSTRUCTION AND MAINTENANCE SIGN SUPPORTS

This work shall be done according to Section 1106 of the "Standard Specifications for Road and Bridge Construction" and Highway Standard 701901 except as modified herein.

All construction signs mounted on permanent support for use in temporary traffic control having an area of 10 square feet or more shall be mounted on two 4 in. x 4 in. or two 4 in. x 6 in. wood posts.

Type A metal posts (two for each sign) conforming to Article 1006.29 of the "Standard Specifications for Road and Bridge Construction" may be used in lieu of wood posts. Type A metal posts used for these signs may be unfinished.

The cost incurred by the Contractor in complying with this requirement shall be considered included in the contract unit price bid for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

#### KEEPING LANES OPEN TO TRAFFIC

This work shall consist of furnishing, installing and maintaining required lighting, signing, or manpower to maintain traffic in a safe manner, as shown on the plans and as described herein.

All construction operations that would result in restrictions to the existing lanes, side roads, or entrances from Station 100+50 to 102+00 on IL Route 4, shall be performed between the hours of 7:00 pm and 6:00 am Sunday night through Friday morning.

In all other areas, if construction operations require lane closures that would limit the two lane, two-way traffic to one lane, the Contractor shall conduct these operations between the hours of 7:00 pm and 6:00 am Sunday night through Friday morning.

The cost incurred by the Contractor in complying with this requirement shall be considered as included in the contract unit prices bid for the various traffic control items involved.

#### TELESCOPING STEEL SIGN SUPPORT

This item shall consist of furnishing and installing telescoping steel sign supports according to Sections 728, 1006, and 1093 of the "Standard Specification for Road and Bridge Construction", except as modified herein.

Telescoping steel sign supports and sign brackets shall be coated as specified below. The color of the top coating shall be black. The coating shall be applied only after the telescoping steel sign support has been fabricated. The final product shall not contain cracks in the coating, ripples in the curved areas, not any damage due to fabrications and or shipping.

- a. Telescoping steel sign support shall be galvanized according to Articles 1093.01 and 1093.02 of the "Standard Specifications for Road and Bridge Construction". The galvanizing method shall provide surfaces suitable for painting.
- b. Prepare all galvanized surfaces to be painted in accordance with ASTM D 6386 and the manufacturer of the coating system's specifications. Provide a clean and suitable galvanized surface that maximizes coating system adhesion.
- c. Measure the thickness of the zinc coating after completion of surface preparation using a magnetic thickness gage to ensure sufficient galvanizing remains on the substrate to meet the requirements listed in AASHTO M 111. Correct any deficient areas to meet the requirements listed in the Standard Specifications prior to painting.
- d. All galvanized exterior surfaces visually exposed are to be coated with a urethane or triglycidly isoyanurate (TGIC) polyester powder coating to a minimum dry film thickness (DFT) of 2.0 mils. Prior to application, the surfaces to be powder coated shall be mechanically etched by brush blasting and the zinc coated substrate preheated to 230 °C (450 °F) for a minimum of one hour in a gas fired convection oven. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 180 °C (350 °F) in a gas-fired convection oven.
- e. Manufacturer shall certify:

Impact Resistance – With the finish surface at room temperature, subject it to a 160 inch-pound direct force by use of a Gardner variable impact tester, Model 1G-1120. Evaluate the test per ASTM D-2794.

Adhesion – Using a sharp blade, scribe a series of eight parallel cuts through the finish of the base material. Scribe another series of eight parallel cuts at a right angle to and crossing the former cuts to form 1/8 inch squares. Press a strip of pressure sensitive adhesive tape (Scotch Brand No 600) over the squares. After two minutes, remove the tape. Results must be level 4 or better as described in ASTM-3359-B.

Salt spray resistance shall be according to ASTM B-117. Humidity Resistance shall be according to ASTM D-2247.

Weatherability – Power painted products shall meet the minimum weatherability standards as set forth in ASTM 336.

- f. Prior to painting, the Contractor shall provide the Engineer product data sheets including Material Safety Data Sheets on preparation material, prime materials and finish materials. Product data sheets shall include manufacturer recommendations for surface preparation and paint application. The contractor shall also furnish manufacturer's certification attesting that the materials supplied conform to the requirements of thee specifications.
- g. Prior to shipment, telescoping steel sign supports shall be protected so that shipping does not cause damage to the painted surface. The Engineer will reject items that exhibit paint damage upon delivery. After delivery, the Contractor shall take care not to damage the painted surface. The Contractor shall replace, at their expense, any painted items that exhibit paint damage as directed by the Engineer.

This work will be paid for at the contract unit price per foot for TELESCOPING STEEL SIGN SUPPORT.

#### WOOD POST AND RAIL FENCE

This work shall consist of constructing wood post and rail fence at the locations shown on the plans, according to the construction details included in the plans and as directed by the Engineer.

Wood railing and post material requirements shall be according to Section 1007 of the "Standard Specifications for Road and Bridge Construction". Preservative treatment shall be applied according to Article 1007.12 with a minimum retention 0.25 lb/cu ft. All timber members including railings, posts and miscellaneous timber appurtenances shall be new (unused material) conforming to either:

1. Southern Pine, No. 1 or better quality graded in accordance with the Southern Pine Inspection Bureau (SPIB).

2. Douglas Fir-Larch, No. 1 or better quality graded in accordance with the West Coast Lumber Inspection Bureau (WCLIB).

All lumber shall be manufactured and inspected according to the latest edition of the Product Standard PS 20-10 as published by the Department of Commerce and shall be grade marked by a certified grading agency according to the requirement of the American Softwood Lumber Standard PS 20-10. The grading agency shall be certified by the Board of Review of the American Lumber Standards Committee.

Fasteners for attaching the wood decking and railing shall be stainless steel according to Article 1006.29(d) of the "Standard Specifications for Road and Bridge Construction". The timber posts shall be installed according to Article 634.05 of the "Standard Specifications for Road and Bridge Construction".

All lumber shall be free from knots and defect and surfaced on four sides. Railing shall be installed closely fitted, accurately set in place, and secured using fasteners and braces as shown on the plans. All nails, spikes and other related fasteners shall be set flush or slightly below the surface of the wood. Pre-drilling of holes for fasteners may be necessary to prevent splitting or splintering of the wood. All joints shall be bevel cut as required by the specific layout prior to fitting and securing the timber sections.

All structural steel, including angles, tubing, and plates shall conform to AASHTO M270 in according to Article 1006.04 and shall be hot dipped galvanized according to AASHTO M232 and then powder coated matte black according to ASTM D7803.

Store all timber and repair all cuts, abrasions, and bored holes according to Article 1007.13 of the "Standard Specifications for Road and Bridge Construction".

WOOD POST AND RAIL FENCE will be measured for payment in feet along the top of the fence from center to center of end posts.

This work will be paid for at the contract unit price per foot for WOOD POST AND RAIL FENCE which includes all material necessary to furnish and all equipment and labor needed to construct the wood railing, posts, caps, structural members and plates, hardware, excavation backfill and all other appurtenances for complete installation.

#### WOOD SIGN SUPPORT

The Contractor shall provide and install 4" x 6" wood posts in accordance with Article 730.04 of the "Standard Specifications for Road and Bridge Construction" and with the details and notes shown in the plans.

The timber posts shall comply with the requirements of Section 1007.01, 1007.02, and 1007.06. The posts shall be treated in accordance with Section 1007.12 of the Standard Specifications except that the preservative treatment shall only be a "Water-Borne Preservative".

Wood sign supports shall be inspected 90 days after placement and shall be replaced at the Engineer's request if the post has excessively warped or twisted. The costs of removal and replacement of the post will be at the contractor's expense.

#### FOLD-DOWN BOLLARDS

This work shall consist of furnishing all labor, materials, and equipment necessary to construct the fold down bollards as shown on the plans and as directed by the Engineer.

Acceptable suppliers of the fold-down bollard are:

Innoplast (800) 516-9287 Model: TWCB 2436Y

TrafficGuard Direct (877) 727-7347 Model: LPHDHB

Bollard Warehouse (888) 290-6420 Model: 2436

Marking tape shall be provided by the Contractor and shall b a Terminal Marker – Direct Applied according to IDOT Highway Standard 725001 and according to Article 1095.06 of the "Standard Specifications for Road and Bridge Construction". Reflective sheeting shall be diamond grade with 3" black and yellow lines at 45-degrees.

Foundations for the bollards shall be Class SI Portland cement concrete according to Section 1020 of the "Standard Specifications for Road and Bridge Construction".

Measurement and payment for this work shall be included at the contract unit price per each for Fold Down Bollards, and no additional compensation will be allowed.

#### BOLLARDS

This work shall consist of furnishing, installing and painting bollards at the locations shown on the plans and details, and as directed by the Engineer.

This work for BOLLARDS shall include (1) stationary bollards. Work will include all primer, paint, reflective caution sheeting, concrete, rebar and foundation work as detailed on the plans.

Payment for this work shall be paid for at the contract unit price EACH for BOLARDS Work for BOLLARDS shall include all materials, labor, and equipment necessary for a complete installation and no additional compensation will be allowed.

#### REMOVE EXISTING FLARED END SECTION

This work shall consist of the removal and satisfactory disposal of existing flared end sections according to Section 551 of the "Standard Specifications for Road and Bridge Construction".

This work will be paid for at the contract unit price per each for REMOVE EXISTING FLARED END SECTION, of unspecified type and diameter, including backfill if required.

#### STORM SEWER TO BE CLEANED, DIAMETER SPECIFIED

This work shall consist of the removal and satisfactory disposal of all accumulated foreign material from storm sewer at the location shown on the plans according to Section 609 of the "Standard Specifications for Road and Bridge Construction".

Any damage to the storm sewer due to the foreign material removal operations shall be repaired by the Contractor at his/her expense.

This work will be paid for at the contract unit price per foot for STORM SEWER TO BE CLEANED, of the diameter specified.

#### SOLAR-POWERED FLASHING BEACON ASSEMBLY

This work shall consist of furnishing and installing a solar powered rectangular rapid flash beacon sign assembly at the locations shown on the plans according to the construction details on the plans.

The solar powered rectangular rapid flash beacon sign assembly shown on the plans shall be included in the cost of the entire assembly. The following shall apply:

| Sign Panel:             | Substrate shall be 0.080 Highway Grade Aluminum, 30" x 30" for the W11-2, background color shall be fluorescent yellow. Signs shall be mounted on both sides of pole.               |
|-------------------------|---|
| Reflective Sheeting:    | Shall conform with Section 1091 of the "Standard Specifications for Road and Bridge Construction"   |
| Solar system:           | 55W high-efficiency panel conforming to IP-67. NEMA 4 rated cabinet with lockable clasps  |
| Storage/backup battery: | Sealed gel battery, functional for 30 days without charge requiring no periodic watering. Sealed construction. Battery lifespan 3 years.  |
| Control Circuit:        | IP-67 NEMA rated enclosure, dustproof and waterproof.<br>Wireless communication system between units on each side<br>of the street  |
| Light Emitting Source:  | Flashing beacon, LED array viewable from all directions,<br>SAE J595 certified. Irregular flash pattern. Flash frequency<br>must be MUTCD compliant. Powder coated aluminum finish. |

| Pole:                   | 4.5" diameter aluminum conforming to Section 1077.01 of<br>the "Standard Specifications for Road and Bridge<br>Construction", the applicable IDOT Highway Standards, and<br>the construction details on the plans.  |
|-------------------------|---|
| Finish:                 | Metal posts, supports, bases and sign panel backs shall be<br>either <b>enameled or polyester coated with a black finish</b> .<br>The application rates of Sections 1006.29(b)(4) and<br>1006.29(b)(5) shall apply. |
| Concrete Foundation:    | Shall conform to Section 1077.01 of the "Standard Specifications for Road and Bridge Construction" and the construction details on the plans.   |
| Activation:             | ADA pushbutton activation   |
| Wireless Communication: | 3 mile range, 900 MHz frequency, programmable   |
| Warranty:               | 1 year (min.) on entire assembly  |

All mounting hardware shall be either zinc-plated steel or stainless steel with antivandal fasteners. The entire assembly shall be MUTCD compliant and U.S. made.

The assembly shall be integrated into the wiring system for the push button post and programmed to activate for 60 seconds after the button is pushed. The assembly shall be synchronized with the assembly on the opposite side of the street (wireless communication) and activate at the push of either button.

Contractor shall coordinate the permit for the Rapid Rectangular Flashing Beacon (RRFB) with the District 8 Bureau of Operations and the City of Mascoutah. A copy of the permit application, has been included. Contractor shall provide the equipment specifications that is to be used for the flashing beacon to District 8 Bureau of Operations.

This work will be paid for at the contract unit price per each for FLASHING BEACON, POST MOUNTED, SOLAR POWERED INSTALLATION.

#### REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

**Description.** This work shall consist of the removal and disposal of regulated substances according to Section 669 of the Standard Specifications as revised below.

<u>Contract Specific Work Areas</u>. For stationing, the lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit, whichever is less.

The following contract specific work areas shall be monitored by the Environmental Firm for soil contamination and workers protection.

#### ISGS Site 4572-3 – Fred Dog Storage, 611 S. Jefferson Street, Mascoutah, St. Clair County

 Station 62+07 to 63+52. The Engineer has determined this material meets the criteria of and shall be managed in accordance to Article 669.05(a)(1). Contaminants of concern sampling parameters: VOCs, SVOCs, and Metals.

# ISGS Site 4572-4 – Erwin Plaza, 602 to 630 S. Jefferson Street, Mascoutah, St. Clair County

 Station 63+90 to 64+00, offset 36'. The Engineer has determined this material meets the criteria of and shall be managed in accordance to Article 669.05(a)(1). Contaminants of concern sampling parameters: VOCs, SVOCs, and Metals.

#### Work Zones

Three distinct OSHA HAZWOPER work zones (exclusion, decontamination, and support) shall apply to projects adjacent to or within sites with documented leaking underground storage tank (LUST) incidents, or sites under management in accordance with the requirements of the Site Remediation Program (SRP), Resource Conservation and Recovery Act (RCRA), or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or as deemed necessary. For this project, the work zones apply for the following ISGS PESA Sites: **None** 

Additional information on the contract specific work areas listed above collected during the regulated substances due-diligence process is available through the District's Environmental Studies Unit (DESU).

#### BALLAST REMOVAL

<u>Description.</u> This work shall consist of the complete removal and disposal of the existing aggregate ballast on the bridge superstructure in accordance with the applicable portions of Section 501 of the Standard Specifications or as directed by the Engineer. The aggregate ballast is approximately nine inches thick on average.

<u>Method of Measurement.</u> This work shall be measured for payment in place and the volume computed in cubic yards.

<u>Basis of Payment.</u> This work shall be paid for at the contract unit price per cubic yard for BALLAST REMOVAL, which price shall include all labor and equipment necessary to remove and dispose of the aggregate ballast.

#### BRIDGE RAIL REMOVAL

<u>Description.</u> This work shall consist of the complete removal and disposal of the existing handrail attached to the bridge superstructure in accordance with the applicable portions of Section 501 of the Standard Specifications or as directed by the Engineer. Anchorages embedded in the bridge superstructure need not be removed.

<u>Method of Measurement.</u> This work shall be measured for payment in place and the length computed in feet.

<u>Basis of Payment.</u> This work shall be paid for at the contract unit price per foot for BRIDGE RAIL REMOVAL, which price shall include all labor and equipment necessary to remove and dispose of the handrail.

#### **BIORETENTION BASIN**

This work shall consist of constructing bioretention basin according to the details shown on the plans.

#### Materials

Planting soil shall be a pre-mixed rain garden mix consisting of sand, soil, and compost as follows:

| <u>Parameter</u>         | <u>Units</u> | As-Sampled |
|--------------------------|--------------|------------|
| Phosphorus               | ppm          | 115.5      |
| Potassium                | ppm          | 328.5      |
| Magnesium                | ppm          | 413        |
| Calcium                  | ppm          | 3,158      |
| pH                       | e=           | 7.3        |
| Organic Matter           | %            | 3.2        |
| Cation Exchange Capacity | meq/100g     | 20.1       |
| Texture Analysis         | %            | Clay 11.3  |
|                          |              | Sand 53.8  |
|                          |              | Silt 35.0  |
| Infiltration Rate        | in/hr        | 5.4        |

Compost shall meet the requirements of Article 1081.05 (b) of the "Standard Specifications for Road and Bridge Construction". In addition, compost shall be registered with the U.S. Composting Council's Seal of Testing Assurance (STA) program. Compost shall have an organic matter content of 35% to 65% as determined by the "loss on ignition" test method described in AASHTO T 267. 100% of the compost material shall pass the ½ in. sieve.

Drainage sand shall be FA 6 according to Article 1003 of the "Standard Specifications for Road and Bridge Construction".

Aggregate recharge bed shall be CA 7 according to Article 1004 of the "Standard Specifications for Road and Bridge Construction".

Underdrain shall be 4" diameter schedule 40 PVC perforated pipe. The perforations shall be 3/8" diameter holes, two sides facing down.

Pea gravel shall have rounded surfaces and 3/8" clean.

Geotextile fabric shall be according to Article 1081.14 of the "Standard Specifications for Road and Bridge Construction".

Fertilizer shall be according to Article 1081.08 of the "Standard Specifications for Road and Bridge Construction".

Plantings shall be according to Section 254 of the "Standard Specifications for Road and Bridge Construction".

| Plantings shall consistin | ig of:       |         |
|---------------------------|--------------|---------|
| Botanical Name            | Common Name  | Spacing |
| Sorghastrum nutans        | Indian Grass | 2' – 3' |

#### Execution

Excavation required for the removal and disposal of existing material as shown in plans shall be according to Section 202 of the "Standard Specifications for Road and Bridge Construction".

Areas to be planted shall be examined for compliance with requirements and other conditions affecting performance. No foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid may be deposited in soil within a planting area.

Soils and soil amendments shall not be mixed or placed in frozen, wet, or muddy conditions. Soil spreading, grading, and tilling operations shall be suspended during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results. Excessively dry, dusty soil that is not workable shall be uniformly moistened.

Installation may only proceed after unsatisfactory conditions have been corrected. Any contamination by foreign or deleterious material or liquid present in soil within a planting area, shall be removed as directed by Engineer and replaced with new planting soil.

#### Seeding

This work shall consist of preparing the seed bed, and furnishing, transporting and placing the seed, fertilizer and mulch according to Sections 250 and 251 of the "Standard Specifications for Road and Bridge Construction".

The Contractor shall guarantee a minimum of 90 percent uniform growth after one growing season over the entire seeded areas(s). Areas sustaining less than 90 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost. The seed shall be broadcast at a rate of 150 lbs per acre. Apply fertilizer at a ratio of 1:1:1 at 6 lbs of nutrients / 1,000 Square Feet.

Watering

Potable water, free of contaminants, shall be applied immediately after planting with sufficient water to moisten the entire planting pit. If necessary, supplemental watering shall be applied continuously during the maintenance period to ensure that plants receive at least 1" of water every 7 days, which amount may include natural rainfall.

This work will be paid for at the contract unit price per square foot for BIORETENTION BASIN, which price shall include planting soil, drainage sand, aggregate recharge bed, fabric, seed, fertilizer, watering and all materials, labor, equipment and tools necessary to complete all work specified herein.

#### TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

This work shall consist of furnishing, installing, maintaining and removing all traffic control devices for traffic control and protection as shown on Highway Standards 701001, 701106, 701301, 701501, 701801, 701901 included in the plans, Section 701 of the "Standard Specifications for Road and Bridge Construction", as directed by the Engineer and as specified herein.

Barricade placement and sign spacing may be adjusted by the Engineer to suit field conditions.

No roads shall be closed to traffic. Temporary lane closures shall be permitted for striping.

Traffic control and protection according to Highway Standard 701801 will be required for sidewalk closures on IL 4 and South Railway Street.

Traffic Control and Protection required for the successful completion of this project will be furnished, installed, maintained, removed, measured and paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL), which price shall include all work as specified herein and all other provisions required by law for the protection and safety of property and individuals in a construction zone.

#### STATUS OF UTILITIES TO BE ADJUSTED

| NAME AND ADDRESS OF<br>UTILITY  | <u>TYPE</u>     | LOCATION  | ESTIMATED DATE                                       |
|---|-----------------|---|--|
| Ameren UE<br>700 Oakwood Avenue<br>Alton, IL 62002<br>Contact Person:<br>Eric Birkner<br>Phone: 618-463-4041  | Gas             | The existing gas distribution line rungs along the west side of<br>South Railway Street near Sta. 53+05.  | No known conflicts                                   |
| Charter Communications210WDivisionStMaryville, IL 62062Contact Person:Jamie JonesJamie.jones@ccisystems.com   | CATV            | The existing aerial cable line crosses the trail near Sta. 11+25,<br>Sta. 52.60, and on the poles south of L&N Avenue from Sta.<br>56+00 to Sta. 63+50, and on the poles north of L&N Avenue<br>from Sta. 53+00 to Sta. 63+50.  | No known conflicts                                   |
| <u>Frontier</u><br>Hoyleton, IL 62263<br>Contact Person:<br>Michael Rakers<br>Phone: 618-318-6646   | Fiber Optic     | The existing underground fiber optic line crosses the trail near<br>Sta. 11+25, 11+60, 52+55, 63+53, and runs along the north<br>side of L&N Avenue from Sta. 56+50 to Sta. 63+42.  | No known conflicts                                   |
| <u>City of Mascoutah</u><br>3 West Main Street<br>Mascoutah, IL 62258<br>Contact Person:<br>Larry Rasch<br>Phone: (618) 566-2964<br>ext. 502        | Water<br>Sewers | The existing 8" water main crosses the trail near Sta. 41+55 and<br>Sta. 63+45. An existing 6" water main crosses the trail near Sta.<br>53+55.<br>There is an existing force main that runs south of the trail from<br>Sta. 11+00 to approximately Sta. 33+35. The force main then<br>crosses the trail near Sta. 33+35. There is an existing force<br>main that runs south of the trail from Sta. 45+50 to<br>approximately Sta. 51+10. The sewer then crosses the trail with<br>an 8" gravity sewer near Sta. 51+10. There is an existing 8"<br>cravity sewer that crosses the trail near Sta. 55+05 | No known conflicts<br>No known conflicts             |
| <u>City of Mascoutah</u><br>3 West Main Street<br>Mascoutah, IL 62258<br>Contact Person:<br>Kim Simpson<br>Phone: (618) 566-2964<br><u>ext. 100</u> | Electric        | The existing electric lines throughout the project limits is owned<br>and operated by the City of Mascoutah.<br>The existing power poles near Sta. 60+60 and Sta. 62+90 will<br>be relocated north by approximately 6 feet.   | The relocation will<br>occur during<br>construction. |

The above represents the best information of the responsible Local Agency and is only included for the convenience of the Contractor. The applicable provisions of Section 102 and Articles 105.07, and 107.20 of the "Standard Specifications for Road and Bridge Construction" shall apply.

Minor adjustments of residential service lines may be necessary to accommodate construction. All such adjustments will be made by their respective owners during construction.

Underground facilities, structures and utilities have been plotted from available surveys and records. Their locations must be considered to be approximate only. It is possible there may be others, the existence of which is not presently known or shown. Such information represents only the opinion of the Local Agency and their Engineer as to the location of such utilities and is only included for the convenience of the bidder. The Local Agency and their Engineer assume no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of underground utility facilities.

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. A request for an extension of time will be considered to the extent the Contractor's operations were affected.

#### **GEOTECHNICAL REPORT**

A geotechnical report prepared by Millennia Professional Services, Ltd. dated December 12, 2023 has been included for informational purposes.



11 Executive Drive, Suite 12, Fairview Heights, Illinois 62208 • 618-624-8610

### **Geotechnical Report**

L&N Railway Trail and Trailhead Mascoutah, Illinois

#### **Prepared For:**

Oates Associates 720 Olive Street, Suite 700 St. Louis, Missouri Attn: Phillip Jones, PE

Prepared By: Millennia Professional Services, Ltd. 11 Executive Drive, Suite 12 Fairview Heights, Illinois 62208 618-624-8610

Authored By: Joseph L. Olson, PE <u>jolson@millennia.pro</u> Millennia Project Number MG23018 December 12, 2023

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#### Geotechnical Report L&N Railway Trail and Trailhead Mascoutah, Illinois

#### 1.0 **Project Description**

#### 1.1 Introduction

Millennia Professional Services (Millennia) is pleased to submit this geotechnical report to Oates Associates (Oates), performed for the design and construction of the proposed L&N Railway Trail and Trailhead project in Mascoutah, Illinois. The purpose of this study was to provide a geotechnical assessment of the subsurface conditions encountered at the boring locations performed by Millennia. This report describes the exploration procedures used, presents the field and laboratory data, and includes an assessment of the subsurface conditions in the area. The work was performed in general accordance with the proposal for the project, dated May 11, 2022.

#### 1.2 Project Description

The project consists of a new shared-use path, trail head, and parking lot to be built along the vacated L&N Railway corridor on the south side of Mascoutah, Illinois. Based on plans provided by Oates, the shared-use path will consist of a 10-foot wide, hot mix asphalt (HMA) surface that extends from the intersection of Brickyard Road and South 10<sup>th</sup> Street to the intersection of L&N Avenue and Illinois Route 4, for a total distance of approximately one mile. Cuts are not expected to exceed about 2 feet, and fills are not expected to exceed 3.5 feet across the proposed alignment. A retaining wall is proposed at the east end of the path. The wall will be approximately 200 feet long, with a maximum exposed height of about 2 feet.

The proposed parking lot will be located at the northwest corner of the intersection of L&N Avenue and Illinois Route 4. The parking lot will be paved with concrete. A grading plan is not yet available, but cuts and fills in the parking lot area are not expected to exceed about two feet.

The general location of the proposed improvements is shown on the Vicinity Map in Appendix A. The approximate locations of the borings performed for this study are presented in the Boring Location Plan in Appendix A.

#### 1.3 Purpose and Scope

The purpose of the geotechnical study was to obtain information concerning subsurface conditions at the site, in order to form conclusions and make engineering recommendations for the following geotechnical considerations:

- A general geologic reconnaissance of the site to observe for geotechnical conditions that might affect the design, construction, and performance of the planned structures.
- Recommended parameters for pavement design, including estimated California Bearing Ratio (CBR) value, and subgrade modulus (k-value).
- The location and description of any potentially deleterious materials encountered at the boring locations that may interfere with construction progress or structure performance.
- The potential impact of groundwater on the design and construction of the structures.
- Subgrade preparation recommendations.
- Estimated magnitude of settlement induced by fill placement.
- The suitability of the on-site materials for use as fill and backfill, including engineering criteria for the placement of those materials.
- Recommended observation, documentation, and materials testing programs during project construction.

## 2.0 Subsurface Exploration and Laboratory Testing

#### 2.1 Exploration

On March 30, 2023, Millennia conducted a subsurface exploration at the site consisting of twelve (12) soil borings and one (1) pavement core. In order to sample the underlying soils, each of the trail borings, designated as T-1 through T-11, was advanced to a depth of approximately 5.0 feet. Boring P-1 was drilled in the proposed parking lot area and was advanced to a depth of approximately 4.5 feet. The trail borings were drilled with an all-terrain mounted drill rig using hollow stem auger drilling methods, while the parking lot boring was advanced using hand auger methods. The approximate locations of the borings performed for this study are indicated on the Boring Location Plan in Appendix A.

A pavement core, designated as C-1, was obtained where the trail crosses South Railway Street. The pavement core was obtained using a diamond tipped core barrel. A photo of the recovered core is included as the Pavement Core Photo document in Appendix B.

#### 2.2 Sampling

Samples were obtained at 2.5-foot intervals. Split-spoon samples were recovered using a 2inch outside-diameter, split-barrel sampler, driven by a CME automatic hammer, in accordance with ASTM D 1586. Shelby tube samples were recovered using a 3-inch outer diameter, thinwalled tube sampler in accordance with ASTM D 1587. Grab samples were obtained at Boring P-1. The sampling sequence for each boring is summarized on the Boring Logs in Appendix B of this report.

#### 2.3 Field Tests and Measurements

The following field tests and measurements were performed, unless otherwise noted, during the course of the subsurface exploration:

- The boring locations were marked in the field by Millennia, based on project information provided by Oates.
- Standard penetration tests were performed and resistances recorded during the recovery of each split-barrel sample.
- Dynamic Cone Penetrometer (DCP) tests were performed and resistances recorded at Boring P-1.

- Sample recovery measurements were made and recorded for each sampling attempt.
- A field classification by color and texture was made for each recovered sample.
- Observations for the presence of groundwater were made during drilling.
- Unconfined compression tests were performed on intact cohesive split-spoon samples using a Rimac compression test.
- Pocket penetrometer estimations of unconfined compressive strength were made on cohesive samples that were not suitable for Rimac testing.

#### 2.4 Laboratory Testing

The following laboratory tests were performed on selected samples recovered from the borings:

- Visual descriptions by color and texture of each sample (ASTM 2488).
- Natural moisture content of each cohesive sample (ASTM D 2216).
- Dry density of selected Shelby tube samples (ASTM D 7263); and
- Unconfined compressive strength of soil (ASTM D 2166).

#### 2.5 Data

The results of the field tests and measurements were recorded on field logs and appropriate data sheets in the field. These data sheets and logs contain information concerning the drilling methods, samples attempted and recovered, indications of the presence of various subsurface materials, and the observation of groundwater. The field logs and data sheets also contain the engineer's interpretations of the conditions between samples, based on the performance of the equipment and cuttings brought to the surface by the drilling tools.

Data and observations from laboratory tests were recorded on laboratory data sheets during the course of the testing program. The results of the tests are summarized on the Boring Logs in Appendix B and on the Laboratory Test Results in Appendix C.

The boring logs are an interpretation of the subsurface conditions based on a combination of the field and laboratory data. The analyses and conclusions contained in this report are based on these field and laboratory test results, and on the interpretations of the subsurface conditions, as reported in the Boring Logs. Only data pertinent to the objectives of this report have been included on the logs, therefore, these records should not be used for other purposes.

The general subsurface conditions encountered and their pertinent engineering characteristics are described in the following paragraphs. Conditions represented by the borings should be considered applicable only at the boring locations on the dates shown; the reported conditions may be different at other locations and at other times.

## 3.0 Subsurface Conditions

### 3.1 Generalized Subsurface Profile

The generalized subsurface profile encountered at the site consists of existing fill overlying natural cohesive soils, including silt, silty lean clay, lean clay, and lean to fat clay (ML, CL-ML, CL, and CL-CH, according to the Unified Soil Classification System). Topsoil was encountered above the fill at borings T-4, T-10, T-11, and P-1, ranging from 3 to 6 inches in thickness. Standard penetration test N-values within the natural subsurface materials range from 2 to 18 blows per foot (bpf). Unconfined compressive strength values range from 0.75 to 3.5 tons per square foot (tsf). Shelby tube samples obtained yielded unconfined compressive strength values of 97 to 109 pounds per cubic foot (pcf). Moisture contents vary from 16 to 29 percent.

Existing fill was encountered at all of the borings except T-4. Fill thickness ranges from approximately 0.75 to boring termination depths of 5.0 feet, with the deepest fill encountered at Boring T-11. The fill is generally comprised of crushed limestone with a variable content of clay. Beneath the crushed limestone at T-7 and T-11, the fill consisted of discolored (black, dark grey) sand with variable contents of clay and gravel. Asphalt was encountered below the crushed limesone at T-9. Standard penetration test N-values in the existing fill materials range from 3 to 10 bpf. Moisture contents vary from 6 to 29 percent.

The existing pavement was cored at Boring C-1, at the intersection of S. Railway Street and L&N Avenue. Approximately 6 inches of asphalt was recovered in two unbonded layers. The existing asphalt can be observed in the Pavement Core Photo document in Appendix B of this report.

#### 3.2 Groundwater

Groundwater was not observed during drilling or at the completion of drilling at the borings performed for this study. Groundwater information at each boring location is reported on the Boring Logs in Appendix B. The presence or absence of groundwater at a particular location does not necessarily indicate that groundwater will be present or absent at that location at other times. Groundwater levels may vary significantly over time due to the effect of seasonal variations in precipitation, the water levels in existing drainage features, or other factors not evident at the time of exploration.

## 3.3 Mining Activity

A review of underground coal mines and industrial mineral mines was made using the Illinois State Geological Survey (ISGS) ILMINES website for mapped mines in Illinois. Based on this information, an inactive underground coal mine is located within approximately 650 feet of the east end of the shared use path, and within approximately 800 feet of the proposed parking lot. The mine boundary is shown relative to the boring locations on the figure included in Appendix D. It should be noted that the location of features, including mine boundaries, may be offset by 500 feet or more. In addition, the plotted mine boundaries are not always based on a final mine map, and undocumented mines are occasionally discovered. The mine was known as the Mascoutah Mine (ISGS Index No. 0340), operated by Kolb Coal Company from 1895 to 1930. The mining operations removed coal from the Herrin Coal Seam, which is approximately 6 to 8 feet thick and is located approximately 160 feet below the ground surface.

Subsidence is the surface manifestation of the collapse or failure of the structural support at the mine level. Subsidence may manifest itself as vertical movements ranging from a few inches to two or three feet and as lateral or rotational ground movements that can result in significant architectural or even structural damage. Agricultural, residential and some commercial developments are common in the area of the project site. Many builders and owners in the area are unaware of, or ignore, the risks associated with subsidence and build without modifications to the design of their structures. Most owners manage the risk for damage through mine subsidence insurance policies.

The risk of subsidence is difficult to quantify without extensive studies. A study of the mine workings would require drilling several borings into the mine and viewing the mine openings with a borehole camera. Soil and rock samples could be taken at each borehole and the engineering properties of the materials could be measured. Geophysical techniques, such as seismic reflection or refraction techniques, could also be used to help define the mine limits. A study of this type is costly and is rarely performed.

## 4.0 Geotechnical Recommendations

## 4.1 Existing Fill

As previously discussed, existing fill was encountered at most of the borings to depths ranging from approximately 0.75 to boring termination depths of 5.0 feet. The presence of crushed limestone, asphalt, and discolored sand along with variable contents of clay and gravel, suggest that the material is existing fill. It is likely that the fill was placed as part of railroad construction and maintenance. However, Millennia is not aware of the existence of any documentation that the fill was placed and compacted in a controlled manner.

Existing fill may also be present in other areas of the site, between or away from the boring locations, where the thickness of the fill could be more or less extensive. It is not known if the existing fill was placed and compacted in a controlled manner. As a result, the engineering properties of the fill cannot be predicted with certainty, and there is a risk for additional total or differential settlement or other performance problems if the new pavements or structures are supported on existing fill. In order to eliminate this risk, the existing fill would have to be removed in its entirety from the planned development areas.

The actual risk for performance problems associated with the material may be low, as the existing fill may have served as foundation for the railroad tracks. During site stripping, after the underlying materials have been exposed, it will be possible to better judge the origin of the material with greater confidence, and to determine whether any mitigation is warranted.

Because of the potential low risk, the owner may be willing to accept some degree of risk associated with the material. The risk could be reduced if pavement subgrades are proof rolled in order to identify soft areas that may be corrected with material removal and replacement with acceptable, properly placed and compacted new structural fill. Risk can also be minimized if foundations are designed to bear beneath the fill on natural soils where practical. These measures would reduce, but not eliminate the risk for differential settlements associated with the existing fill. If it is desired to eliminate any risks related to the existing fill, the material should be entirely removed and replaced with acceptable, properly placed and compacted new structural fill. At this time, the actual volume of existing fill is unknown, and cannot be fully assessed until the material is exposed during construction.

### 4.2 Pavement Design Considerations

Based on the general character of the natural soils encountered at the borings, as well as the results of the laboratory testing, a CBR value of 3 is considered appropriate for design of new asphalt pavements. A modulus-of-subgrade reaction value of 100 pounds per cubic inch can be used for the design of Portland cement concrete pavements. These values are based on the assumption that the subgrade is prepared in accordance with the recommendations provided in this geotechnical report.

Based on the natural soil conditions encountered at the boring locations, additional remediation of approximately 12 inches of the underlying subgrade will likely be necessary along the shareduse path and at the parking lot. Please refer to the subsequent sections in this report for additional guidance on the subgrade preparation.

Options for remediation may include:

- Scarify and recompact the subgrade, then proof-roll the subgrade to identify any areas requiring additional remediation.
- Chemically modifying the upper 12 inches of subgrade. There are several existing occupied homes located adjacent to this site. Lime dust is a caustic material that should be used with caution by a contractor experienced with its application.
- Removing and replacing the upper 12 inches of subgrade with compacted aggregate meeting the requirements of a CA-6.

## 4.3 Settlement Induced by Earthwork Considerations

The construction of the new trail will require additional fill placement along portions of the trail sections and side slopes for the project. Based on preliminary plans provided by Oates, fills of up to approximately 3.5 feet are planned near Station 27+00. Due to the placement of the new fill as part of the earthwork process, settlement is anticipated to result in less than one inch. The settlement will be less in areas where the fills taper towards lesser overall fill thicknesses. Settlement along areas of the side slopes where thicker fill placement is required may result in the eventual need for additional minor fill placement to maintain design slope grades. A majority of the settlement should take place as the fill is placed during construction.

## 4.4 Lateral Earth Pressures

Lateral earth pressure parameters are provided for the design of the retaining wall. Structures that are restricted from movement at the top should be designed to resist at-rest earth pressures. Structures that are free to move and deflect at the top may be designed to resist active earth pressures. A horizontal deflection at the top of the structure of approximately 1% of the freestanding height is typically required to permit active pressure to develop. Earth pressures are a function of the excavation configuration and the backfill materials. The following design parameters are recommended for backfill materials:

| Parameter                         |                | Crushed<br>Limestone | Sand       | Cohesive<br>Soil |
|-----------------------------------|----------------|----------------------|------------|------------------|
| At-Rest Equivalent Fluid Pressure | Drained        | 55 pcf               | 55 pcf     | 70 pcf           |
| 12                                | Submerged      | 85 pcf               | 90 pcf     | 95 pcf           |
| Active Equivalent Fluid Pressure  | Drained        | 35 pcf               | 35 pcf     | 50 pcf           |
|                                   | Submerged      | 80 pcf               | 80 pcf     | 85 pcf           |
| Passive Equivalent Fluid Pressure | Drained        | 480 pcf              | 370 pcf    | 295 pcf          |
| E                                 | Submerged      | 310 pcf              | 230 pcf    | 205 pcf          |
| Soil Wet Unit Weight              | W <sub>2</sub> | 130 pcf              | 115 pcf    | 120 pcf          |
| Angle of Internal Friction        |                | 35°                  | 32°        | 25°              |
| Assumed Surcharge Condition       |                | None                 | None       | None             |
| Ground Surface Profile            |                | Horizontal           | Horizontal | Horizontal       |

Table 4.1 Lateral Earth Pressure Parameters

pcf = pounds per cubic foot. No factor of safety has been applied to the values above.

Submerged values should be used for the calculation of lateral pressures for those portions of the walls that extend below the highest level of anticipated groundwater. The values for submerged fluid pressure for active and at-rest conditions include hydrostatic pressures.

Significant horizontal movement would be necessary to develop the full values of passive pressure; typically the passive values stated are reduced by up to one-half for design. The effects of vertical surcharge or seismic loads, or sloping ground behind vertical structures, are not included for the stated fluid pressures. Vertical loading may be accounted for by assuming that a lateral force equal to 0.5 times the vertical load will act at the midpoint of the structure. To limit unbalanced hydrostatic pressure behind the structures, a free-draining granular backfill material encased in a nonwoven geotextile should be placed behind the structures, in conjunction with weep holes or perforated pipes draining by gravity to daylight, to allow free drainage of the backfill. Resistance to sliding may be analyzed using a friction factor of 0.3 for mass concrete on soil. No factor of safety has been included in this friction factor.

## 5.0 Construction Considerations

#### 5.1 Subgrade Preparation

After the removal of the existing topsoil and loose fill materials, and where further excavation is not planned, the exposed subgrade should be proof-rolled, which is accomplished by passing over the subgrade with a loaded tandem axle dump truck and observing the subgrade for pockets of excessively soft, wet, disturbed, or otherwise unsuitable soils. Any unacceptable materials thus found should be excavated and either recompacted or replaced with new fill.

Generally, prior to placing fill, pavement materials, or structural elements in any area, the subgrade should be scarified to a depth of about six inches, the moisture content of the soil adjusted to near its optimum moisture content, and the subgrade recompacted in accordance with recommendations made in subsequent sections of this report. This recommended proof-rolling and recompaction of the subgrade may be waived by Millennia if it is determined based on field observations that it is unnecessary or could be detrimental to the existing subgrade condition.

### 5.2 Subgrade Protection

Construction areas should be properly drained in order to reduce or prevent surface runoff from collecting on the subgrade. Any ponded water on the exposed subgrade should be removed immediately. To prevent unnecessary disturbance of the subgrade soils, trucks and other heavy construction vehicles should be restricted from traveling through the finished subgrade area. If disturbed areas develop, they should be reworked and compacted as previously described.

#### 5.3 Fill Material

The required site and structural fill and backfill may be constructed using the natural silty lean clay and lean clay materials available from on-site excavations. Fill material from off-site borrow sources may also be used, but should be approved by Millennia prior to placement. In general, structural fill should consist of low plasticity lean clays or clayey silts with a liquid limit of less than 50 and a plasticity index of less than 25.

At the time of construction, the moisture content of the fill materials may be variable, and may not be within the range considered necessary for proper placement and compaction. Prior to compaction, some of the soil may require moisture content adjustment. During warm weather, moisture reduction can generally be accomplished by disking, or otherwise aerating, the soil. When air-drying is not feasible, a moisture-reducing chemical additive could be incorporated into the cohesive soil. As previously mentioned, lime dust is a caustic material that should be used with caution by a contractor experienced with its application. Millennia should be consulted to assess the effectiveness of any additive and to recommend the amount and methods for application.

If earthwork is performed during a period of dry weather, some of the fill may require the addition of moisture prior to compaction. This should be performed in a controlled manner using a tank truck with a spray bar, and the moistened soil should be thoroughly blended with a disk or pulverizer to produce a uniform moisture content. Repeated passages of the equipment may be required in order to achieve a reasonably uniform moisture content.

## 5.4 Fill Placement

Fill for general site grading should be placed in layers not exceeding eight inches in loose thickness and compacted to the required dry density. Backfill compacted by handheld equipment should be placed in layers not greater than six inches. The layer thickness may be increased if tests indicate that compaction could be achieved uniformly throughout the layer using a greater thickness. At the time of compaction, fill should generally be within three percent, wet or dry, of the optimum moisture content of the material as determined by the standard Proctor compaction test, ASTM D 698. Fill should be compacted to a dry density of not less than 95 percent of the standard Proctor maximum dry density of the material. In order to develop a usable Proctor curve, sand fill will need to include a component of finer sand or silt. Well graded sands, while typically suitable for use as fill, can be difficult to test for compliance with compacted density specifications. Granular material such as crushed limestone that is placed for structure support should be compacted to at least 100% of the standard Proctor maximum dry density.

Backfill placed next to walls or foundations should be compacted with hand-operated compaction equipment rather than large self-propelled or machine-operated equipment. The operation of large pieces of equipment adjacent to these structures can result in overcompaction and higher lateral pressures than those recommended herein for design. Compaction should be reduced within approximately one foot of the wall. Structures should be observed periodically during backfilling for signs of movement. If movement is detected, it may be necessary to change backfilling procedures.

### 5.5 Groundwater Considerations

Groundwater seepage is not expected to be significant during general site grading activities, however, the potential for groundwater seepage will depend in-part upon the magnitude of cuts and fills required to develop the site, as governed by the eventual grading plan. Should groundwater seepage be encountered during excavation, it is expected that it can be handled by an excavation drainage system consisting of drainage ditches, sumps, and pumps. In the absence of significant rainfall, saturated zones should drain over a period of days. If more significant groundwater flow is encountered, Millennia should be contacted to assess the situation.

## 5.6 Soft Subgrade

If during the course of construction, soft or disturbed soils are encountered, the recommendations in the following paragraph should be followed. Soft soils that are encountered at the pavement subgrade level may be difficult to recompact to the required density in a conventional manner. These soils may require removal and replacement with crushed limestone. In general, no more than 12 inches of over-excavation is expected to be necessary. Crushed limestone with a gradation similar to CA-6 Aggregate as specified by IDOT would be acceptable replacement fill. Larger stone may be needed if areas where more than 1 foot of replacement is needed. The crushed limestone should be placed in 8-inch lifts and mechanically compacted to 100% of the standard Proctor maximum density of the material (ASTM D 698). At the time of compaction, the crushed limestone should be within 3% of the optimum moisture content of the material as determined by the standard Proctor compaction

test. Millennia should be consulted if extensive areas of soft subgrade soils are encountered that prove difficult to compact.

### 5.7 Sensitive Soils

The natural subsurface materials encountered at the site include areas with silty clay and silt. Silt-rich material is considered potentially sensitive and susceptible to strength loss caused by excess moisture or disturbance by construction activity. This can result in rutting and "pumping," which is characterized as the deflection and rebound of the subgrade under passage of wheeled equipment or track loading. Once disturbed, extensive effort can be required to restore the integrity of the soils. General site grading activities and excavations must be performed in a manner that limits disturbance to subgrade soils. The contractor should select earth moving equipment appropriately, and should be prepared to adjust the type or usage of the equipment as necessary in order to minimize potential distress to the subgrade. It is sometimes necessary to remove topsoil or perform limited cuts using equipment such as a track hoe rather than a high-lift scraper or other type of equipment that might repeatedly pass directly over the subgrade. If wet weather or soft subgrade conditions persist, it may be necessary to stabilize the subgrade with a moisture-reducing chemical, as discussed in an earlier section of this report.

### 5.8 Open Graded "Clean" Crushed Limestone and Sand Backfill

Sand and gravel available from local borrow pits, and crushed limestone from quarries, are common construction materials in the general region. There is a misconception among some builders that open-graded (also known as "clean") limestone and other granular materials do not require compaction when placed as fill or backfill. Settlement of such granular materials that had not been compacted when originally placed is a common cause of damage to foundations and concrete slabs, including the development of substantial gaps caused by the settlement.

Any crushed rock, gravel, or sand placed as structural fill or backfill that will underlie future foundations, floor slabs, walkways, or pavements must be placed in lifts (layers) of controlled loose thickness and compacted in accordance with the recommendations that appear in this report. Open-graded and well-graded limestone, gravel, and sand should be compacted with a vibratory compactor, whether a self-propelled roller, backhoe-mounted plate, or walk-behind sled.

### 6.0 Construction Phase Services

It is recommended that Millennia review the plans and specifications for the project prior to bid solicitation in order to determine the relationship of the geotechnical information presented in this report with the final design of the trail. This additional service is recommended in order to reduce construction phase problems that might otherwise arise in the field and result in construction delays or change orders.

Documenting observations and performing materials testing during construction of foundations, retaining walls, pavements, and other structures that are supported by earth materials, is an integral aspect of the geotechnical engineering process. The geotechnical engineering profession is based on the "Observational Method," through which design assumptions and recommendations, based on limited drilling and sampling data, can be verified or modified in response to actual conditions observed as the materials are exposed by construction equipment.

Selecting the same firm that provided the geotechnical engineering services to also perform observation and materials testing services during construction results in decreased risk to the owner and entire design team. The geotechnical firm which is most familiar with the site can recognize unanticipated conditions that might otherwise adversely affect construction progress or structure performance. Millennia has a staff of experienced field technicians and a geotechnical and materials testing laboratory equipped to support a wide variety of construction projects. After the project plans and specifications have been prepared, Millennia requests the opportunity to submit a proposal to perform the specified construction observation and materials testing services.

For this project, it is recommended that Millennia be retained by Oates or the City during construction in order to perform the following observations and field tests, where applicable:

- Observation of earthwork operations for the new trail and parking lot construction, including proof roll and compaction of soil and base rock.
- Observation and documentation of asphalt placement, if applicable, along with compaction testing for conformance with the project specifications.
- Quality assurance testing of fresh concrete delivered to the site, and compressive strength testing of concrete cylinders cast on site for conformance with the project specifications, if applicable.
- Observation and documentation of topsoil stripping and the removal of any deleterious materials encountered.
- Observation and documentation of fill and backfill placement, along with compaction testing for conformance with the project specifications.

These quality assurance services should help to verify design assumptions, and to maintain construction procedures in accordance with the contract plans, specifications, and good construction and engineering practices.

## 7.0 Closing

This report has been prepared for the exclusive use of Oate's Associate's for use in the design and construction for the proposed L&N Railway Trail and Trailhead project in Mascoutah, Illinois. This report has been prepared in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made to the professional advice and recommendations included herein. This report is not for use by parties other than those named or for purposes other than those stated herein. It may not contain sufficient information for the use of other parties or for other purposes.

If there is a substantial lapse of time between the submission of this report and the start of work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, this report should be reviewed by Millennia to determine the applicability of the analyses and recommendations considering the changed conditions and time lapse. The report should also be reviewed by Millennia if changes occur in structure location, size and type, or in the planned loads, elevations, grading plans, and project concepts.

These analyses and recommendations are based on data obtained from site reconnaissance, the borings performed for this study, and other pertinent information presented herein. This report does not reflect any variations between, beyond, or below the borings. Should such variations become evident, it may be necessary to re-evaluate the recommendations of this report after performing on-site observation during the construction period and noting the characteristics of any such variation.

We appreciate this opportunity to be of service to you and would be pleased to discuss any aspect of this report with you at your convenience.

Sincerely,

## Millennia Professional Services, Ltd.

alph L. Ollan

Joseph L. Olson, PE Senior Geotechnical Engineer





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# Appendix A

Vicinity Map, Figure 1 Boring Location Plan, Figure 2

# Millennia Professional Services

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Phone: (618) 624-8610

Fax: (618) 624-8611

Project No.: MG23018



| FIGURE 1: VICINITY MAP         L&N Railway Trail and Trailhead         Mascoutah, Illinois |  |           |             |            |  |  |  |  |  |  |  |  |  |
|--|--|-----------|-------------|------------|--|--|--|--|--|--|--|--|--|
| 企  | L&N Railway Trail and Trailhead<br>Mascoutah, Illinois |           |             |            |  |  |  |  |  |  |  |  |  |
| IN   | Drawn by:  | B. Fisher | Checked by: | J. Olson   |  |  |  |  |  |  |  |  |  |
| Image obtained from MyTopo *Not to scale   | Project No.:   | MG23018   | Date:       | 12/11/2023 |  |  |  |  |  |  |  |  |  |



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| $\frown$  | FIGURE               | 2: BORING LOCATION PLAN  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|----------------------|--------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
|   | L&                   | N Trail and Trailhead    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N   |                      | Mascoutah, Illinois      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Approximate O<br>Boring Location:                 | Drawn by: B. Fisher  | Checked by: J. Schaeffer |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Image obtained from Google Earth<br>*Not to scale | Project No.: MG23018 | 42 Date: 5/11/2023       |  |  |  |  |  |  |  |  |  |  |  |  |  |



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# Appendix B

Boring Logs Pavement Core Photo

|              |                     | Millennia   |         |            |                |               | BO              | RIN               | ig i         | NUN    | <b>ABE</b><br>PAGE   | <b>R F</b><br>≣ 1 0 | <b>P-1</b><br>0F 1 |
|--------------|---------------------|---|---------|------------|----------------|---------------|-----------------|-------------------|--------------|--------|----------------------|---------------------|--------------------|
| CLIE         | NT Or               | ites Associates                                       | PROJECT |            | 1.8.1          | l Trailhead   |                 |                   |              |        |                      |                     |                    |
| PRO          |                     | UMBER MG23018   | PROJECT | LOCA       |                | Mascoutah     | Illino          | is                |              |        |                      |                     |                    |
| DATE         | STAR                | TED 3/30/23 COMPLETED 3/30/23                         | GROUND  | ELEVA      |                | naccoula      | ,               | HOLE              | SIZE         | Six i  | nches                |                     |                    |
| DRIL         | LING C              | ONTRACTOR Millennia Professional Services             | GROUND  | WATE       |                | LS:           |                 |                   |              |        |                      |                     |                    |
| DRIL         | LING IV             | ETHOD Hand Auger                                      | AT      |            |                | LING N        | lot En          | counte            | ered         |        |                      |                     |                    |
| LOG          | GED B               | M. Jenkins CHECKED BY J. Olson                        | ATI     | END OF     |                | .ING N        | /A              |                   |              |        |                      |                     |                    |
| NOT          | ES                  |   | AFT     | ER DR      | ILLING         | N/A           |                 |                   |              |        |                      |                     |                    |
| т            | 일<br>               |   |         | TYPE<br>ER | RY %<br>()     | LES<br>JES    | PEN.            | г WT.             | JRE<br>T (%) | AT     | rerbe<br>Limits<br>T | RG<br>}<br>≻        | NTENT              |
| DEPT<br>(ft) | GRAPH               | MATERIAL DESCRIPTION                                  |         | SAMPLE     | RECOVE<br>(RQD | BLOV<br>COUN  | POCKET<br>(tsf) | DRY UNI'<br>(pcf) | MOISTU       | LIQUID | PLASTIC<br>LIMIT     | LASTICIT            | INES COI           |
| 0.0          | <u>11 - 11 - 11</u> | TOPSOIL (6")  |         |            |                |               |                 |                   |              |        |                      |                     |                    |
|              |                     | Brown, silty lean CLAY (CL-ML), trace sand and gravel |         |            |                |               |                 | -                 |              | -      |                      |                     |                    |
|              |                     |   | 4       | ng GB      | 100            | 4-5-5<br>(10) | 2.5             |                   | 18           |        | ,                    |                     |                    |
| <u>2.5</u>   |                     |   | -       |            |                |               |                 | -                 |              | -      |                      |                     |                    |
|              |                     |   | ¢       | ng GB<br>2 | 100            | 2-3-3<br>(6)  | 1.5             |                   | 23           |        |                      |                     |                    |
|              |                     | Bottom of borehole at 4.5 feet.                       |         | _          |                |               |                 | L                 |              | I      | <u> </u>             |                     | I                  |
|              |                     |   |         |            |                |               |                 |                   |              |        |                      |                     |                    |

|       |                | Millennia  |        |                       |                                     |                                 | BO                   | RIN                   | IG I                    | NUN   | <b>/IBE</b><br>PAGE | <b>R T</b> | <b>-1</b><br>F 1     |
|-------|----------------|--|--------|-----------------------|-------------------------------------|---------------------------------|----------------------|-----------------------|-------------------------|-------|---------------------|------------|----------------------|
| CLIE  | INT <u>0</u> a | ates Associates UMBER MG23018                    | PROJEC | Γ NAME<br>Γ LOCAT     | <u>     L &amp;  N</u><br>TION    I | <u>l Trailhead</u><br>Mascoutah | , Illino             | is                    |                         |       |                     |            |                      |
| DAT   | E STAR         | TED <u>3/30/23</u> COMPLETED <u>3/30/23</u>      | GROUND | ELEVA                 |                                     | 426 ft                          |                      | HOLE                  | SIZE                    | Six i | nches               |            |                      |
| DRIL  | LING C         | ONTRACTOR _Geo Drill, Inc                        |        | WATER                 |                                     | LS:                             |                      |                       |                         |       |                     |            |                      |
| DRIL  | LING N         | ETHOD Hollow Stem Auger                          | AT     | TIME OF               | DRILI                               | _ING N                          | lot En               | counte                | ered                    |       |                     |            |                      |
| LOG   | GED B          | M. Jenkins CHECKED BY J. Olson                   | AT     | end of                | DRILL                               | ING N                           | /A                   |                       |                         |       |                     |            |                      |
| NOT   | ES Ap          | proximate Station: 12+00, Elevations Approximate | AF     | FER DRI               | LLING                               | N/A                             |                      |                       |                         |       |                     |            |                      |
| DEPTH | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                             |        | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD)                 | BLOW<br>COUNTS<br>(N VALUE)     | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) |       |                     |            | FINES CONTENT<br>(%) |
| -     | -              | FILL: CRUSHED LIMESTONE, with clay               | 425    |                       |                                     |                                 |                      |                       |                         |       |                     |            |                      |
|       |                | Brown, lean CLAY (CL), with crushed limestone    |        | SS<br>1               | 17                                  | 4-4-4<br>(8)                    |                      |                       | 16                      |       |                     |            |                      |
|       |                | Brown with grey, lean to fat CLAY (CL-CH)        | 423_   |                       |                                     |                                 |                      |                       |                         |       |                     |            |                      |
| 5.0   |                |  | 421    | SS<br>2               | 67                                  | 1-2-3<br>(5)                    | 1.98<br>(B)          |                       | 29                      |       |                     |            |                      |
|       |                | Bottom of borehole at 5.0 feet.                  |        |                       |                                     |                                 |                      |                       |                         |       |                     |            |                      |

|  |                | Millennia  |             |                       |                     |                             | BO                   | RIN                   | IG I                    | NUN   | <b>/IBE</b><br>PAGE | <b>R T</b> | <b>-2</b><br>F 1     |
|--|----------------|--|-------------|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-------|---------------------|------------|----------------------|
| CLI  |                | la lates Associates                                  | _ PROJEC    |                       | <u> </u>            | l Trailhead                 |                      |                       |                         |       |                     |            |                      |
| PRO  | OJECT          | NUMBER MG23018                                       | PROJEC      | T LOCAT               |                     | Mascoutah                   | , Illino             | is                    |                         |       |                     |            |                      |
| DAT  | TE STA         | RTED _3/30/23         COMPLETED _3/30/23             |             | ELEVA                 | FION _              | 427 ft                      |                      | HOLE                  | SIZE                    | Six i | nches               |            |                      |
| DRI  | LLING          | CONTRACTOR Geo Drill, Inc                            | GROUNE      | WATER                 | LEVE                | LS:                         |                      |                       |                         |       |                     |            |                      |
| DRI  | LLING          | METHOD Hollow Stem Auger                             | AT          | TIME OF               | DRILI               | LING N                      | lot En               | counte                | ered                    |       |                     |            |                      |
| LOC  | GGED E         | Y M. Jenkins CHECKED BY J. Olson                     | _ AT        | END OF                | DRILL               | .ING N                      | /A                   |                       |                         |       |                     |            |                      |
| NO   | TES A          | pproximate Station: 17+00, Elevations Approximate    | _ AF        | TER DRI               | LLING               | N/A                         |                      |                       |                         |       |                     |            |                      |
| o DEPTH  | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                 |             | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) |       |                     |            | FINES CONTENT<br>(%) |
| -  |                | FILL: CRUSHED LIMESTONE, with clay                   | 426         |                       |                     |                             |                      |                       |                         |       |                     |            |                      |
| TAILHEAD.GPJ   | -              | Dark grey, clayey SILT (ML), trace sand and orgaincs | 420         | SS<br>1               | 100                 | 5-3-3<br>(6)                | 1.11<br>(S)          |                       | 19                      |       |                     |            |                      |
|  |                | Brown with grey, lean to fat CLAY (CL-CH)            | 424         |                       |                     |                             |                      |                       |                         |       |                     |            |                      |
| 023/MG23018 L&N TRAILI<br>5<br>5                                       |                |  | 422         | SS<br>2               | 100                 | 1-2-3<br>(5)                | 1.73<br>(B)          |                       | 28                      |       |                     |            |                      |
| FILES/20   |                | Bottom of borehole at 5.0 feet.                      | , Mariana ( | _                     |                     |                             |                      |                       |                         |       | L                   |            |                      |
| SEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/11/23 11:59 - G.IPROJECT |                |  |             |                       |                     |                             |                      |                       |                         |       |                     |            |                      |

|  | Millennia                        |                                 |          |                       |                     |                             | BC                   | RIN                   | IG I                    | NUN   | <b>/IBE</b><br>PAGE | <b>R T</b> | <b>-3</b><br>F 1     |
|--|----------------------------------|---------------------------------|----------|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-------|---------------------|------------|----------------------|
|  | ates Associates                  |                                 | PROJEC   |                       | 1 & 1               | l Trailbead                 |                      |                       |                         |       |                     |            |                      |
|  | IUMBER MG23018                   |                                 | PROJEC   |                       |                     | Mascoutah                   | . Illino             | is                    |                         |       |                     |            | -                    |
| DATE STAF  | RTED _ 3/30/23                   | <b>COMPLETED</b> <u>3/30/23</u> | GROUNE   | ELEVA                 |                     | 427 ft                      |                      | HOLE                  | SIZE                    | Six i | nches               |            |                      |
| DRILLING C   |                                  | Drill, Inc                      | GROUNE   | WATER                 | LEVE                | LS:                         |                      |                       |                         |       |                     |            |                      |
| DRILLING N   | Hollow Ster                      | n Auger                         | AT       | TIME OF               | DRIL                | LING N                      | lot En               | counte                | ered                    |       |                     |            |                      |
| LOGGED B   | Y M. Jenkins                     | CHECKED BY J. Olson             | AT       | END OF                | DRILL               | .ING N                      | /A                   |                       |                         |       |                     |            |                      |
| NOTES Ap   | proximate Station: 22            | +00, Elevations Approximate     | AF       | TER DRI               | LLING               | N/A                         |                      |                       |                         |       |                     |            | _                    |
| o DEPTH<br>(ft)<br>GRAPHIC<br>LOG  |                                  | MATERIAL DESCRIPTION            |          | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) |       |                     |            | FINES CONTENT<br>(%) |
|  | FILL: CRUSHED<br>Grey, SILT (ML) | LIMESTONE, with clay            | 426.25   |                       |                     |                             |                      |                       |                         |       |                     |            |                      |
| агтантнеардард<br>41 8 и ткиннеардард<br>2.5                               |                                  |                                 | 121 25   | SS<br>1               | 100                 | 10-11-7<br>(18)             | -                    |                       | 16                      |       |                     |            |                      |
|  | Grey, Iean CLAY                  | (CL)                            | <u> </u> | ST                    | 83                  |                             | 35                   | 109                   | 20                      |       |                     |            |                      |
| 5.0  | - undrained shear                | strength = 0.90 tsf             | 422      | 2                     |                     |                             | 0.0                  |                       | 20                      |       |                     |            |                      |
| EOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/11/23 11:39 - G./PROJECT FILE |                                  |                                 |          |                       |                     |                             |                      |                       |                         |       |                     |            |                      |

| Millennia   | BORING NUMBER T-4<br>PAGE 1 OF 1   |
|---|--|
| CLIENT Oates Associates   | PROJECT NAME 1. & N Trailhead  |
| PROJECT NUMBER MG23018  |  |
| DATE STARTED 3/30/23 COMPLETED 3/30/23                                      | GROUND ELEVATION 424 ft HOLE SIZE Six inches   |
|   | GROUND WATER LEVELS:   |
| DRILLING METHOD Hollow Stem Auger   | AT TIME OF DRILLING Not Encountered  |
| LOGGED BY M. Jenkins CHECKED BY J. Olson                                    | AT END OF DRILLING N/A   |
| NOTES Approximate Station: 27+00, Elevations Approximate                    | AFTER DRILLING N/A   |
| 표 (유명) MATERIAL DESCRIPTION   | LE TYPE<br>ABER<br>ALUE)<br>ALUE)<br>MIT WT<br>NIT W |
|   | SAMPI<br>SAMPI<br>NUU<br>RECO<br>(R<br>(N V<br>(N V<br>CONT<br>LIMU<br>LIMU<br>LIMU<br>FLASTI<br>FINES (<br>FINES (  |
|   | 423.5  |
| Grey with brown, lean to fat CLAY (CL-CH), trace sand                       |  |
|   |  |
| 8 / LKAITHERC<br>2.5  | SS 1 89 1-1-2 0.95 (B) 26  |
|   |  |
|   | SS 2 100 1-2-2 1.81 (B) 26   |
| Bottom of borehole at 5.0 feet.   | 419 / / / / / / / / / / /  |
| GEOTECH BH COLUMNS - GINT STD US LAB. GDT - 12/1/23 11:59 - G. PROUECT FILE |  |

| i   |       |           | Millennia   |         |                   |                  |                         | BO                         | RIN               | IG I                 | NUN    | <b>IBE</b><br>PAGE | <b>R T</b>   | <b>-5</b>   |
|---|-------|-----------|---|---------|-------------------|------------------|-------------------------|----------------------------|-------------------|----------------------|--------|--------------------|--------------|-------------|
| C   | IFN   | T O       | iates Associates  | PRO.IFC |                   | 181              | l Trailhead             |                            |                   |                      |        |                    |              |             |
| PI  | ROJE  | <br>ЕСТ М | NUMBER MG23018  | PROJEC  |                   |                  | Mascoutah               | . Illino                   | is                |                      |        |                    |              | -           |
| D   | ATE   | STAF      | RTED 3/30/23 COMPLETED 3/30/23  | GROUNE  | ELEVA             |                  | 427 ft                  | 1                          | HOLE              | SIZE                 | Six ir | nches              |              |             |
| DI  | RILLI | NG        | CONTRACTOR Geo Drill, Inc   | GROUNE  | WATER             |                  | LS:                     |                            |                   |                      |        |                    |              |             |
| DI  | RILLI | NG        | METHOD Hollow Stem Auger  | AT      |                   | DRIL             | LING N                  | lot End                    | counte            | ered                 |        |                    |              |             |
| LC  | DGG   | ED B      | Y M. Jenkins CHECKED BY J. Olson  | AT      | END OF            | DRILL            | .ING N                  | /A                         |                   |                      |        |                    |              |             |
| N   | OTES  | S Ap      | pproximate Station: 32+00, Elevations Approximate   | AF      | TER DRI           | LLING            | N/A                     |                            |                   |                      |        |                    |              |             |
| ретн  | (ft)  | RAPHIC    | MATERIAL DESCRIPTION  |         | PLE TYPE<br>UMBER | OVERY %<br>(RQD) | BLOW<br>OUNTS<br>VALUE) | KET PEN.<br>(tsf)          | UNIT WT.<br>(pcf) | JISTURE<br>ITENT (%) |        |                    |              | CONTENT (%) |
| 0   | .0    | 0<br>     |   |         | SAM               | REC              | -οź                     | POO                        | DRY               | M O O O              |        | PLA                | PLAS:<br>INI | FINES       |
| AB.GDT - 12/11/23 11:59 - G:\PROJECT FILES/2023/MG23018 L&N TRAILHEAD/FIELD DATAL & N TRAILHEAD.GPJ |       |           | FILL: CRUSHED LIMESTONE, with clay Dark grey, clayey SILT (ML) Dark grey, silty lean CLAY (CL-ML) Bottom of borehole at 5.0 feet. | 426     | SS 1<br>SS 2      | 78               | 4-3-3<br>(6)            | 2.06<br>(S)<br>0.78<br>(B) |                   | 21                   |        |                    |              |             |
| GEOTECH BH COLUMNS - GINT STI   |       |           |   |         |                   |                  |                         |                            |                   |                      |        |                    |              |             |

|   | Millennia  |        |                       |                     |                             | BO                   | RIN                   | IG I                    | NUN   | <b>/IBE</b><br>PAGE | <b>R T</b> | <b>-6</b><br>F 1     |
|---|--|--------|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-------|---------------------|------------|----------------------|
| CLIENT  | Oates Associates   | PROJEC | TNAME                 | L&N                 | l Trailhead                 |                      |                       |                         |       |                     |            |                      |
| PROJEC  | NUMBER MG23018   | PROJEC |                       |                     | Mascoutah                   | , Illino             | is                    |                         |       |                     |            |                      |
| DATE ST   | ARTED 3/30/23 COMPLETED 3/30/23                                      | GROUNE | ELEVA                 |                     | 427 ft                      |                      | HOLE                  | SIZE                    | Six i | nches               |            |                      |
| DRILLING  | CONTRACTOR Geo Drill, Inc  | GROUNE | WATER                 | LEVE                | LS:                         |                      |                       |                         |       |                     |            |                      |
| DRILLING  | METHOD Hollow Stem Auger   | AT     | TIME OF               | DRIL                | LING N                      | lot En               | counte                | ered                    |       |                     |            |                      |
| LOGGED  | BY M. Jenkins CHECKED BY J. Olson                                    | AT     | END OF                | DRILL               | .ING N                      | /A                   |                       |                         |       |                     |            |                      |
| NOTES   | Approximate Station: 37+00, Elevations Approximate                   | AF     | TER DRI               | LLING               | N/A                         |                      |                       |                         |       |                     |            |                      |
| DEPTH<br>D (ft)<br>GRAPHIC  | MATERIAL DESCRIPTION   |        | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) |       |                     |            | FINES CONTENT<br>(%) |
|   | FILL: CRUSHED LIMESTONE, with clay                                   | 426    |                       |                     |                             |                      |                       |                         |       |                     |            |                      |
| TAL & N TRAILHEAD GPJ   | Dark grey, slity lean CLAY (CL-IML)                                  | 424.25 | SS<br>1               | 44                  | 2-3-3<br>(6)                | 1.5                  | -                     | 20                      |       |                     |            |                      |
| 23MG23018L&N TRALHEADRIELD DA   | Brown and grey, lean CLAY (CL) - undrained shear strength = 0.53 tsf | 422    | ST<br>2               | 100                 |                             | 2.75                 | 102                   | 22                      |       |                     |            |                      |
| EOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/11/23 11:59 - G:VPROJECT FILES/2 | Bottom of borehole at 5.0 feet.                                      |        |                       |                     |                             |                      |                       |                         |       |                     |            |                      |

|         |              |                | Millennia   |        |                       |                     |                             | BO                   | RIN                   | 1G I                    | NUN             | <b>/IBE</b><br>PAGE | <b>R T</b> | <b>-7</b><br>F 1     |
|---------|--------------|----------------|---|--------|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-----------------|---------------------|------------|----------------------|
| CL      | IEN.         | το             | ites Associates   | PROJEC | TNAME                 | L&N                 | I Trailhead                 |                      |                       |                         |                 |                     |            |                      |
| PF      | oji          |                | UMBER MG23018   | PROJEC |                       | ION                 | Mascoutah                   | , Illino             | is                    |                         |                 |                     |            |                      |
| DA      | TE           | STAR           | TED <u>3/30/23</u> COMPLETED <u>3/30/23</u>             | GROUN  | ELEVA                 |                     | 427 ft                      |                      | HOLE                  | SIZE                    | Six i           | nches               |            |                      |
| DF      | RILL         | ING C          | ONTRACTOR Geo Drill, Inc                                | GROUND | WATER                 |                     | LS:                         |                      |                       |                         |                 |                     |            | ~                    |
| DF      | RILL         | ING N          | ETHOD Hollow Stem Auger                                 | AT     | TIME OF               | DRIL                | LING N                      | lot En               | counte                | ered                    |                 |                     |            |                      |
| LC      | GG           | ED B`          | M. Jenkins CHECKED BY J. Olson                          | AT     | END OF                | DRILL               | .ING N                      | /A                   |                       |                         |                 |                     |            |                      |
| NC      | DTE          | S Ap           | proximate Station: 42+00, Elevations Approximate        | AF     | TER DRI               | LLING               | N/A                         |                      |                       |                         |                 |                     |            |                      |
| O DEPTH | ( <b>t</b> ) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                    |        | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) | LIQUID<br>LIMIT |                     |            | FINES CONTENT<br>(%) |
| -       | -            |                | FILL: CRUSHED LIMESTONE, with clay                      | 426    |                       |                     |                             |                      |                       |                         |                 |                     |            |                      |
|         | -            |                | FILL: Dark grey, coarse SAND (SP), with clay and gravel |        | ss<br>1               | 83                  | 5-5-5<br>(10)               | -                    |                       | 6                       |                 |                     |            |                      |
|         | _            |                | Dark grey and brown, clayey SILT (ML)                   | 424    |                       |                     |                             |                      |                       |                         |                 |                     |            |                      |
|         | -            |                |   | 422    | SS<br>2               | 100                 | 3-2-4<br>(6)                | 2.0                  |                       | 25                      |                 |                     |            |                      |
|         |              |                | Bottom of borehole at 5.0 feet.                         |        |                       |                     |                             |                      |                       |                         |                 |                     |            |                      |
|         |              |                |   |        |                       |                     |                             |                      |                       |                         |                 |                     |            |                      |

|  |               |         |     | Millennia  |        |                       |                     |                             | BC                   | RIN                   | IG I                    | NUN   | <b>IBE</b><br>PAGE | <b>R T</b> | <b>-8</b><br>F 1     |
|--|---------------|---------|-----|--|--------|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-------|--------------------|------------|----------------------|
|  |               |         | Oa  | -<br>tes Associates                                  | PROJEC |                       | L& N                | I Trailhead                 |                      |                       |                         |       |                    |            |                      |
| 1  | PROJ          | EC      |     | UMBER MG23018  | PROJEC |                       |                     | Mascoutah                   | , Illino             | is                    |                         |       |                    |            |                      |
| 1  | DATE          | ST      | AR  | TED _3/30/23 COMPLETED _3/30/23                      | GROUNE | ELEVA                 |                     | 427 ft                      |                      | HOLE                  | SIZE                    | Six i | nches              |            |                      |
| 1  | DRILL         | INC     | G C | ONTRACTOR Geo Drill, Inc                             | GROUNE | WATER                 | LEVE                | LS:                         |                      |                       |                         |       |                    |            | ~                    |
| )  | DRILL         | .INC    | ЗM  | ETHOD Hollow Stem Auger                              | AT     | TIME OF               | DRIL                | LING N                      | lot En               | counte                | red                     |       |                    |            |                      |
| 1  | LOGG          | ED      | BY  | M. Jenkins CHECKED BY J. Olson                       | AT     | END OF                | DRILL               | .ING N                      | /A                   |                       |                         |       |                    |            |                      |
| 1  | NOTE          | S       | Ар  | proximate Station: 47+00, Elevations Approximate     | AF     | TER DRI               | LLING               | N/A                         |                      |                       |                         |       |                    |            |                      |
|  | o<br>(ff)     | GRAPHIC | LOG | MATERIAL DESCRIPTION                                 |        | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) |       |                    |            | FINES CONTENT<br>(%) |
| _  | _             |         |     | FILL: CRUSHED LIMESTONE, with clay                   | 426    |                       |                     |                             |                      |                       |                         |       |                    |            |                      |
| 0ATA\L & N TRAILHEAD.GPJ   | -<br>-<br>2.5 |         |     | Dark grey, SILT (ML), trace sand and organics        |        | SS<br>1               | 67                  | 4-5-2<br>(7)                | 2.06<br>(S)          |                       | 18                      |       |                    |            |                      |
|  | -             |         |     | Grey with brown, silty lean CLAY (CL-ML), trace sand | 424_   |                       |                     |                             |                      |                       |                         |       |                    |            |                      |
| 2023/MG23018 L&N TRA   | -<br>5.0      |         |     |  | 422    | ss<br>2               | 100                 | 1-2-2<br>(4)                | 1.57<br>(S)          |                       | 18                      |       |                    |            |                      |
| GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/11/23 11:59 - G.NPROJECT FILES |               |         |     | Bottom of borehole at 5.0 feet.                      |        |                       |                     |                             |                      |                       |                         |       |                    |            |                      |

|                   |                | Millennia   |  |                       |                     |                             | BO                   | RIN                   | IG I                    | NUN             | <b>IBE</b><br>PAGE | <b>R T</b> | <b>-9</b><br>F 1     |
|-------------------|----------------|---|--|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-----------------|--------------------|------------|----------------------|
| CLIEN             | NT _0a         | tes Associates  | PROJECT NAME L & N Trailhead                 |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| PROJ              | IECT N         | UMBER MG23018   | PROJECT LOCATION Mascoutah, Illinois         |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| DATE              | STAR           | TED <u>3/30/23</u> COMPLETED <u>3/30/23</u>                               | GROUND ELEVATION 427 ft HOLE SIZE Six inches |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| DRILL             | LING C         | ONTRACTOR Geo Drill, Inc  | GROUND WATER LEVELS:                         |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| DRILL             | LING IV        | ETHOD Hollow Stem Auger   | AT TIME OF DRILLING Not Encountered          |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| LOGO              | GED B          | M. Jenkins CHECKED BY J. Olson  | AT END OF DRILLING N/A                       |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| NOTE              | S Ap           | proximate Station: 52+00, Elevations Approximate                          | AFTER DRILLING N/A                           |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| O DEPTH<br>O (ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION  |  | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) | LIQUID<br>LIMIT |                    |            | FINES CONTENT<br>(%) |
|                   |                | FILL: CRUSHED LIMESTONE, with clay<br>Black, weathered ASPHALT, with clay | 426.5  |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
|                   |                | Dark grey, silty lean CLAY (CL-ML)  | 425  | ss<br>1               | 100                 | 4-2-1<br>(3)                |                      |                       | 28                      |                 |                    |            |                      |
| 2.5               |                |   | 424.25                                       |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| L _               |                | Grey, lean CLAY (CL)  |  |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |
| <br><br>5.0       |                | - undrained shear strength = 0.45 tsf                                     | 422  | ST<br>2               | 100                 |                             | 1.75                 | 97                    | 23                      |                 |                    |            |                      |
|                   |                | Bottom of borehole at 5.0 feet.   |  |                       |                     |                             |                      | _                     |                         |                 |                    |            |                      |
|                   |                |   |  |                       |                     |                             |                      |                       |                         |                 |                    |            |                      |

|   |              |                | Millennia   |   |                       |                     | E                           | Bof                  | RING                  | G N                     | UMI | BEF<br>PAGE | <b>R T-</b><br>≣ 1 0 | <b>10</b><br>F 1     |
|---|--------------|----------------|---|---|-----------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-----|-------------|----------------------|----------------------|
| CL  |              | T <u>Oa</u>    | tes Associates  | PROJECT NAME <u>L &amp; N Trailhead</u><br>PROJECT LOCATION Mascoutah, Illinois |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| DA  | TES          | STAR           | TED 3/30/23 COMPLETED 3/30/23                           | GROUND ELEVATION 426 ft HOLE SIZE Six inches                                    |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| DR  |              | NG CO          | ONTRACTOR _ Geo Drill, Inc                              | _ GROUND WATER LEVELS:  |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| DR  | ILL          | NG M           | ETHOD Hollow Stem Auger                                 | AT TIME OF DRILLING Not Encountered   |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| LO  | GGE          | ED BY          | M. Jenkins CHECKED BY J. Olson                          | AT  | END OF                | DRILL               | .ING N                      | /A                   |                       |                         |     |             |                      |                      |
| NC  | TES          | App            | proximate Station: 58+00, Elevations Approximate        | AFTER DRILLING N/A  |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| o DEPTH   | ( <b>t</b> ) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                    |   | SAMPLE TYPE<br>NUMBER | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) |     |             |                      | FINES CONTENT<br>(%) |
|   |              | <u>, 17</u>    | TOPSOIL (3")  | 425.75  |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| -   |              |                | FILL: CRUSHED LIMESTONE, with clay                      | 424 75  |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
|   | 5            |                | Dark grey to black, silty lean CLAY (CL-ML), trace sand | 424.73  | ss<br>1               | 78                  | 1-1-2<br>(3)                | 1.5                  |                       | 23                      |     |             |                      |                      |
|   |              |                | Grey with brown, lean CLAY (CL), trace sand             | 423_  |                       |                     |                             |                      |                       |                         |     |             |                      |                      |
| 023\MG23018 L&N TRAII<br>1 1 1 C  | 0            |                |   | 421   | ss<br>2               | 100                 | 1-1-2<br>(3)                | 1.65<br>(B)          |                       | 24                      |     |             |                      |                      |
| 01ECH BH COLUMNS - GINT STUUS LAB.GUT - 12/11/23 11:34 - G.WRUJEUT FILEDA |              |                | Bottom of borehole at 5.0 feet.                         |   |                       |                     |                             | ·                    |                       |                         |     |             |                      |                      |

|   |                       | Millennia  |  |                                     |                     | E                           | Bof                  | RING                  | g N                     | UMI            | BEF<br>PAGE | <b>R T-</b><br>1 0 | <b>11</b><br>F 1     |
|---|-----------------------|--|--|-------------------------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|----------------|-------------|--------------------|----------------------|
|   |                       | tes Associates                                   |  |                                     | 1.8.1               | l Trailbead                 |                      |                       |                         |                |             |                    |                      |
| PRC   |                       | UMBER MG23018                                    | PROJECT LOCATION Mascoutah, Illinois         |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |
| DAT   | E STAR                | TED 3/30/23 COMPLETED 3/30/23                    | GROUND ELEVATION 428 ft HOLE SIZE Six inches |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |
| DRI   | LLING C               | ONTRACTOR _ Geo Drill, Inc                       | GROUND WATER LEVELS:                         |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |
| DRII  | LLING N               | ETHOD _ Hollow Stem Auger                        | AT   | AT TIME OF DRILLING Not Encountered |                     |                             |                      |                       |                         |                |             |                    |                      |
| LOG   | GED B                 | M. Jenkins CHECKED BY J. Olson                   | AT   | END OF                              | DRILL               | .ING N                      | /A                   |                       |                         |                |             |                    |                      |
| NOT   | ES Ap                 | proximate Station: 63+50, Elevations Approximate | AFTER DRILLING N/A                           |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |
| O DEPTH   | (m)<br>GRAPHIC<br>LOG | MATERIAL DESCRIPTION                             |  | SAMPLE TYPE<br>NUMBER               | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) | LIMIT<br>LIMIT |             |                    | FINES CONTENT<br>(%) |
|   | XXXX                  |  | 427.75                                       |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |
| -   |                       | FILL: CRUSHED LIMESTONE, with clay               | 406.75                                       |                                     |                     |                             | -                    |                       |                         |                |             |                    |                      |
| TAIL & N TRAILHEAD.GPJ  |                       | Black, coarse SAND (SP), with clay and gravel    | 426.75                                       | ss<br>1                             | 83                  | 2-3-5<br>(8)                | -                    |                       | 24                      |                |             |                    |                      |
| ILHEAD/FIELD DA   |                       |  |  |                                     |                     |                             | -                    |                       |                         |                |             |                    |                      |
| 3\MG23018 L&N TRA   |                       |  |  | ss<br>2                             | 100                 | 5- <b>4-</b> 3<br>(7)       |                      |                       | 29                      |                |             |                    |                      |
| 5.0<br>S/S/S/   | ××××                  | Bottom of borehole at 5.0 feet.                  | 423  |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |
| GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/11/23 11:59 - G:\PROJECT FILE |                       |  |  |                                     |                     |                             |                      |                       |                         |                |             |                    |                      |

|  |                                 | Millennia   |                                      |                                     |                     |                             | BO                   | RIN                   | IG N                    | NUN             | IBE<br>PAGE | <b>R C</b> | F 1                  |
|--|---------------------------------|---|--------------------------------------|-------------------------------------|---------------------|-----------------------------|----------------------|-----------------------|-------------------------|-----------------|-------------|------------|----------------------|
| CLIEN  | IT _0a                          | ates Associates   | PROJEC                               | <b>NAME</b>                         | <u> </u>            | l Trailhead                 |                      |                       |                         |                 |             |            |                      |
| PROJ   | ECT N                           | UMBERMG23018  | PROJECT LOCATION Mascoutah, Illinois |                                     |                     |                             |                      |                       |                         |                 |             |            |                      |
| DATE   | STAR                            | TED 3/30/23         COMPLETED 3/30/23                         | GROUND                               | ELEVA                               | TION _              |                             |                      | HOLE                  | SIZE                    | Six ir          | nches       |            |                      |
| DRILLING CONTRACTOR _ Geo Drill, Inc GROUND WATE |                                 |   |                                      |                                     |                     | LS:                         |                      |                       |                         |                 |             |            |                      |
| DRILLING METHOD _ Core Machine                   |                                 |   |                                      | AT TIME OF DRILLING Not Encountered |                     |                             |                      |                       |                         |                 |             |            |                      |
| LOGG   | ED B                            | M. Jenkins CHECKED BY J. Olson                                | AT END OF DRILLING N/A               |                                     |                     |                             |                      |                       |                         |                 |             |            |                      |
| NOTE   | <b>S</b> _Ap                    | prox. STA: 53+00; intersection of S. Railway St. and L & N Av | e. AF                                | FER DRI                             | LLING               | N/A                         |                      |                       |                         |                 |             |            |                      |
| O DEPTH<br>O (ft)                                | GRAPHIC<br>LOG                  | MATERIAL DESCRIPTION  |                                      | SAMPLE TYPE<br>NUMBER               | RECOVERY %<br>(RQD) | BLOW<br>COUNTS<br>(N VALUE) | POCKET PEN.<br>(tsf) | DRY UNIT WT.<br>(pcf) | MOISTURE<br>CONTENT (%) | LIQUID<br>LIMIT |             |            | FINES CONTENT<br>(%) |
|  |                                 | ASPHALT (6.0"): Two layers (2.5", 3.5")                       |                                      |                                     |                     |                             |                      |                       |                         |                 |             |            |                      |
|  |                                 | - see pavement core photo for detials                         |                                      |                                     |                     |                             |                      |                       |                         |                 |             |            |                      |
|  | Bottom of borehole at 0.5 feet. |   |                                      |                                     |                     |                             |                      |                       |                         |                 |             |            |                      |

GEOTECH BH COLUMNS - GINT STD US LAB GDT - 12/11/23 11:58 - G./PROJECT FILES/2023/MG23018 L&N TRAILHEAD/FIELD DATAIL & N TRAILHEAD/GPJ



Pavement Core Photograph L & N Trail and Trailhead Project No.: MG23018

Boring: C-1



END

ТОР

| Later Material | Thickness (in.) |
|----------------|-----------------|
| Asphalt        | 2.5             |
| Asphalt        | 3.5             |



11 Executive Drive, Suite 12, Fairview Heights, Illinois 62208 • 618-624-8610

# Appendix C

Laboratory Test Results



Project Name: Project No.: L&N Trail MG230018 Boring: Sample ID: Sample Depth: T-3

ST-2

3-5 ft.







Fairview Heights Office: 11 Executive Drive, Suite 12, Fairview Heights, Illinois 62208 Phone: 618-624-8610, Fax: 618-624-8611







6439 Plymouth Avenue, Suite W-129, St. Louis, Missouri 63133 • 618-624-8610

# <u>Appendix D</u>

**Mining Activity** 

# Millennia Professional Services

11 Executive Drive #12, Fairview Heights, IL Phone: (618) 624-8610 Fax: (618) 624-8611 Project No.: MG23018



| $\land$                            | MINING ACTIVITY  |                      |  |  |  |  |  |  |  |  |
|------------------------------------|--|----------------------|--|--|--|--|--|--|--|--|
| N                                  | L&N Railway Trail and Trailhead<br>Mascoutah, Illinois |                      |  |  |  |  |  |  |  |  |
| Approximate O<br>Boring Locations: | Drawn by: B. Fisher                                    | Checked by: J. Olson |  |  |  |  |  |  |  |  |
| Image obtained from GoogleEarth    | Project No.: MG23018                                   | 63 Date: 12/11/2023  |  |  |  |  |  |  |  |  |



#### SUBMITTAL OF EEO/LABOR DOCUMENTATION

#### Effective: April 2016

This work shall be done in accordance with Check Sheets No. 1, 3, and 5 of the IDOT Supplemental Specifications and Recurring Special Provisions and the "Weekly DBE Trucking Reports (BDE)" Special Provision, except as here-in modified.

#### PAYROLL AND STATEMENT OF COMPLIANCE

Certified payroll, (FORM SBE 48 OR AND APPROVED FACSIMILE) and the Statement of Compliance, (FORM SBE 348) shall be submitted by two methods:

- 1. By Mail (United States Postal Service): The ORIGINAL of the certified payroll and the Statement of Compliance for the Prime Contractor and each Subcontractor shall be submitted by mail to the Regional Engineer for District 8.
- 2. Electronically: Scan both the ORIGINAL of the certified payroll and the Statement of Compliance to the same PDF file and email to the District at the email address designated by the District EEO Officer.

SBE 48 and SBE 348 forms shall be submitted weekly and will be considered late if received after midnight seven (7) business days after the payroll ending date.

#### WEEKLY DBE TRUCKING REPORT

The Weekly DBE Trucking Report, (FORM SBE 723) shall be submitted electronically. Scan the form to a PDF file and email to the District at the email address designated by the District EEO Officer.

SBE 723 forms shall be submitted weekly and will be considered late if received after midnight ten (10) business days following the reporting period.

#### MONTHLY LABOR SUMMARY & MONTHLY CONTRACT ACTIVITY REPORTS

The Monthly Labor Summary Report (MLSR) shall be submitted by one of two methods:

- 1. For contractors having IDOT contracts valued in the aggregate at \$250,000 or less, the report may be typed or clearly handwritten using Form D8 PI0148. Submit the ORIGINAL report by mail to the Regional Engineer for District Eight. Contractors also have the option of using the method #2 outlined below.
- 2. For contractors having IDOT contracts valued in the aggregate of more than \$250,000, the report must be submitted in a specific "Fixed Length Comma Delimited ASCII Text File Format". This file shall be submitted by e-mail using specific file formatting criteria provided by the District EEO Officer. Contractors must submit a sample text file to District 8 for review at least fourteen (14) days prior to the start of construction.
The Monthly Contract Activity Report (MCAR) may be typed or clearly handwritten using Form D8 PI0149.

The Monthly Labor Summary Report and the Monthly Contract Activity Report shall be submitted concurrently. If the method of transmittal is method #1 above then both the MLSR and the MCAR shall be mailed together in the same envelope. If the method of transmittal is method #2 above then the MCAR shall be scanned to a .pdf file and attached to the email containing the MLSR .txt file.

The MLSR and MCAR must be submitted for each consecutive month, for the duration of the project, and will be considered late if received after midnight ten (10) calendar days following the reporting period.

### REQUEST FOR APPROVAL OF SUBCONTRACTOR:

The ORIGINAL and one copy of the Request for Approval of Subcontractor (FORM BC 260A) shall be submitted to the District at the IDOT Preconstruction Conference.

### SUBSTANCE ABUSE PREVENTION PROGRAM CERTIFICATION

The ORIGINAL and one copy of the Substance Abuse Prevention Program Certification (FORM BC 261) shall be submitted to the District at the IDOT Preconstruction Conference.

The Contractor is required to follow submittal procedures as provided by the EEO Officer at the preconstruction conference and to follow all revisions to those procedures as issued thereafter.

If a report is rejected, it is the contractor's responsibility to make required adjustments and/or corrections and resubmit the report. Reports not submitted and accepted within the established timeframes will be considered late.

Disclosure of this information is necessary to accomplish the statutory purpose as outlined under 23CFR part 230 and 41CFR part 60.4 and the Illinois Human Rights Act. Disclosure of this information is REQUIRED. Failure to comply with this special provision may result in the withholding of payments to the contractor, and/or cancellation, termination, or suspension of the contract in whole or in part.

### This Special Provision must be included in each subcontract agreement.

## ALL HARD COPY FORMS TO BE SUBMITTED TO:

Region 5 Engineer Illinois Department of Transportation ATTN: EEO/LABOR OFFICE 1102 Eastport Plaza Drive Collinsville, IL 62234-6198

Compliance with this Special Provision shall be included in the cost of the contract and no additional compensation will be allowed for any costs incurred.

### State of Illinois Department of Transportation Bureau of Local Roads and Streets

### SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007 Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

City of Mascoutah

ľ

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

### State of Illinois DEPARTMENT OF TRANSPORTATION Bureau of Local Roads & Streets SPECIAL PROVISION FOR LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA 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. (100 mm) 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  |
|--|
| Cores  |
| Nuclear Density Gauge (Correlated when<br>paving ≥ 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 (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). 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 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 label."



### **Storm Water Pollution Prevention Plan**

| Route                | Marked Route     | Section Number  |  |
|----------------------|------------------|-----------------|--|
| L&N AVE AND UNION ST | Illinois Route 4 | 21-00028-00-BT  |  |
| Project Number       | County           | Contract Number |  |
|                      | St. Clair        | 97863           |  |

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Permittee Signature & Date

Mellakor

### SWPPP Notes

#### Preparing BDE 2342 (Storm Water Pollution Prevent Plan)

Guidance on preparing each section of BDE 2342 (Storm Water Pollution Prevention Plan) is found in Chapter 41 of the IDOT Bureau of Design and Environment (BDE) Manual, please consult this chapter during SWPPP preparation Please note that the Illinois Environmental Protection Agency (IEPA) has 30 days to review the Notice of Intent (NOI) prior to project approval and any deficiencies can result in construction delays.

The Notice of Intent contains the following documents:

- BDE 2342 (Storm Water Pollution Prevention Plan)
- BDE 2342 A (Contractor Certification Statement)

• Erosion and Sediment Control Plan (See Section 63-4.09 of the BDE Manual)

#### Non-applicable information

If any section of the SWPPP is not applicable put "N/A" in box rather than leaving blank.

### National Pollutant Discharge Elimination System (NPDES) Compliance

**Description of Work:** This work shall consist of those efforts necessary for compliance with the requirements of the Clean Water Act, Section 402 (NPDES), and the Illinois Environment Protection Act. This provision also provides the background information needed to comply with ILR10 and ILR40 permits for this project.

## NPDES COMPLIANCE REQUIREMENTS

### Part I: Site Description

1. Describe the project location; include latitude and longitude, section, town, and range.

The project is located in Mascoutah, IL Southeastern St. Clair County in the South Half of Section 31 and Section 32, Township 1 North, Range 6 West of 3rd Principal Meridian.

2. Describe the nature of the construction activity or demolition work.

The project will consist of the construction of a new 10-wide HMA multi-purpose trail with a 2' earth shoulder from end to end. Curb ramps with truncated domes will be constructed on the trail at 10th Street, South Railway Street, and IL 4. Curb ramps will also be installed at the midblock crossing on L&N Avenue to the parking lot. A new 12 space (with 1 ADA space) concrete parking lot will be located north of L&N Avenue. A midblock crossing on L&N Avenue will connect the parking lot on the north side to the trail alignment on the south side. Two raingardens will be between the parking lot and L&N Avenue to control additional runoff from the parking lot. Demolition work will consist mainly of tree removal and tree trimming and curb removal for new curb ramps.

3. Describe the intended sequence of major activities which disturb soils for major portions of the site (e.g. clearing, grubbing, excavation, grading, on-site or off-site stockpiling of soils, on-site or off-site storage of materials).

- 1. Install inlet protection on exhibit inlets and culverts, and install temporary ditch checks.
- 2. Remove trees along trail alignment.
- 3. Mass grading for trail alignment.
- 4. Construct trail and culverts.
- 5. Complete fine grading and install permanent seeding and plantings.

6. When all construction activity is complete and all vegetation is established, upon approval by the city, remove all erosion control measures, and reseed any areas disturbed by their removal.

4. The total area of the construction site is estimated to be 4.0 acres.

5. The total area of the site estimated to be disturbed by excavation, grading or other activities is 4.0 acres.

6. Determine an estimate of the runoff coefficient of the site after construction activities are completed.

Prior to construction the runoff coefficient is 0.34.

| After the construction the runoff coefficient will be 0.55. | . This is largely due to the increase in paved area due to |
|---|--|
| the shared-use path and the parking lot                     |  |

7. Provide the existing information describing the potential erosivity of the soil at discharge locations at the project site.

The downstream end of the proposed culverts.

8. Erosion and Sediment Control Plan (Graphic Plan) is included in the contract. 🛛 Yes 🗌 No

9. List all soils found within project boundaries; include map until name, slope information, and erosivity.

Pierron Silt Loam (31A) - 0 to 2 percent slopes Herrick Silt Loam (46A) - 0 to 2 percent slopes Oconee Silt Loam (113A) - 0 to 2 percent slopes Aviston Silt Loam (438B) - 2 to 5 percent slopes Marine Silt Loam (517A) - 0 to 2 percent slopes Homen Silt Loam (582C2) - 5 to 10 percent slopes, eroded Dupo Silt Loam (3180A) - 0 to 2 percent slopes, frequently flooded

10. List of all MS4 permittees in the area of this project City of Mascoutah

<u>Note</u>: For sites discharging to an MS4, a separate map identifying the location of the construction site and the location where the MS4 discharges to surface water must be included.

# Part II: Waters of the US

| 1. List the nearest named receiving water(s) and ultimate receiving waters.  |  |  |  |  |
|--|--|--|--|--|
| Receiving water is Hog River which flows into Silver Creek and ultimately flows into Kaskaskia River.  |  |  |  |  |
| 2. Are wetlands present in the project area?  Yes No   |  |  |  |  |
| If yes, describe the areal extent of the wetland acreage at the site.  |  |  |  |  |
| N/A  |  |  |  |  |
| 3. Natural buffers:  |  |  |  |  |
| For any storm water discharges from construction activities within 50 feet of a Waters of the United States, except for activities for water-<br>dependent structures authorized by a Section 404 permit, the following shall apply: |  |  |  |  |

(i) A 50-foot undisturbed natural buffer between the construction activity and the Waters of the United States has been provided

Yes X No; and/or

| 1.1     | 0 1 1'1'   | Sector and the sector of the s | Concernence Processing and the | Contraction of the second s | 211 2 II II       | Construction and the second | En anne a ser a |
|---------|------------|--|--------------------------------|---|-------------------|---|---|
| (11)    | Additional | aracian and  | COMIMONT                       | CONTROLE MA   | ITDID TOOT        | aroa hac  | haan hrouidad   |
| UID -   | Auditoria  | CIUSION and  | seument                        | CONTROLS V  | vili illi li la l | alcallas  |   |
| · · · / |            |  |                                |   |                   |   |   |

| X Yes | No; and Describe: | Erosion control | plan and | silt fence | will be | provided. |
|-------|-------------------|-----------------|----------|------------|---------|-----------|
|-------|-------------------|-----------------|----------|------------|---------|-----------|

### Part III. Water Quality

#### 1. Water Quality Standards

As determined by the Illinois Pollution Control Board, Illinois waters have defined numeric limits of pollutants under the umbrella term "Water Quality Standards." In the following table are commonly used chemicals/practices used on a construction site. These chemicals if spilled into a waterway, could potentially contribute to a violation of a Water Quality Standard. If other chemicals that could contribute a violation of a Water Quality Standard, add as needed.

| Fertilizer (check as appropriate) | 🔀 Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) |
|-----------------------------------|--|
| 🔀 Nitrogen                        | $\bigotimes$ Waste water for concrete washout station            |
| Phosphorus, and/or                | Coal tar Pitch Emulsion  |
| 🔀 Potassium                       | Other (Specify)  |
| Herbicide                         | Other (Specify)  |
|                                   |  |

#### Table 1: Common chemicals/potential pollutants used during construction

If no boxes are checked in Table 1 above, check the following box:

There are no chemicals on site that will exceed a Water Quality Standards if spilled.

If any boxes are checked in Table 1 above, check the following box:

There are chemicals on site that if spilled could potentially cause an exceedance of a Water Quality Standard. The Department shall implement Pollution Prevention/Good Housekeeping Practices as described in the Department's ILR40 Discharge for Small

Municipal Separate Storm Sewer Systems (MS4) reiterated below and Part VIII. Unexpected Regulated Substances/Chemical Spill Procedures:

#### Pollution Prevention:

The Department will design, and the contractor shall, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants from construction activities. At a minimum, such measures must be designed, installed, implemented and maintained to:

(a) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.

(b) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, chemical storage tanks, deicing material storage facilities and temporary stockpiles, detergents, sanitary waste, and other materials present on the site exposed to precipitation and to storm water.

(c) Minimize the discharge of pollutants from spills, leaks and vehicle and equipment maintenance and repair activities and implement chemical spill and leak prevention and response procedures;

(d) Minimize the exposure of fuel, oil, hydraulic fluids, other petroleum products, and other chemicals by storing in covered areas or containment areas. Any chemical container with a storage of 55 gallons or more must be stored a minimum of 50 feet from receiving waters, constructed or natural site drainage features, and storm drain inlets. If infeasible due to site constraints, store containers as far away as the site permits and document in your SWPPP the specific reasons why the 50-foot setback is infeasible and how the containers will be stored.

(e) The contractor is to provide regular inspection of their construction activities and Best Management Practices (BMPs). Based on inspection findings, the contractor shall determine if repair, replacement, or maintenance measures are necessary in order to ensure the structural integrity, proper function, and treatment effectiveness of structural storm water BMPs. Necessary maintenance shall be completed as soon as conditions allow to prevent or reduce the discharge of pollutants to storm water or as ordered by the Engineer. The Engineer shall conduct inspections required in Section XI Inspections, and report to the contractor deficiencies noted. These Department conducted inspections do not relieve the contractor from their responsibility to inspect their operations and perform timely maintenance; and

(f) In addition, all IDOT projects are screened for Regulated Substances as described in Section 27-3 of the BDE Manual and implemented via Section 669: Removal and Disposal of Regulated substances in the Standard Specifications for Road and Bridge Construction.

Approved alterations to the Department's provided SWPPP, including those necessary to protect Contractor Borrow, Use and Waste areas, shall be designed, installed, implemented and maintained by the Contractor in accordance with IDOT Standard Specifications Section 280.

### 2. 303(d) Impaired Waterways

Does the project area have any 303(d) impaired waterways with the following impairments?

- suspended solids
- turbidity, and or
- siltation

🗌 Yes 🛛 No

If yes, list the name(s) of the listed water body and the impairment(s)

| 303(d) waterbody | Impairments(s) |
|------------------|----------------|
|                  |                |
|                  |                |
|                  |                |
|                  |                |

In addition, It is paramount that the project does not increase the level of the impairment(s) described above. Discuss which BMPs will be implemented to reduce the risk of impairment increase

#### 3. Total Maximum Daily Load (TMDL)

Does the project include any receiving waters with a TMDL for sediment, total suspended solids, turbidity or siltation? 🗌 Yes 🛛 🕅 No

If yes, List TMDL waterbodies below and describe associated TMDL

| TMDE waterbody | TMDL waterbody | TMDL |
|----------------|----------------|------|
|----------------|----------------|------|

| TMDL waterbody | TMDL |
|----------------|------|
|                |      |
|                |      |
|                |      |

Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL

If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation

# Part IV. Temporary Erosion and Sediment Controls

Stabilization efforts must be initiated within 1 working day of cessation of construction activity and completed within 14 days. Areas must be stabilized if they will not be disturbed for at least 14 calendar days. Exceptions to this time frame include:

(i) Where the initiation of stabilization measures is precluded by snow cover, stabilization measures must be initiated as soon as practicable,

(ii) On areas where construction activities have temporarily ceased and will resume after 14 days, a temporary stabilization method can be used (temporary stabilization techniques must be described), and

(iii) Stabilization is not required for exit points at linear utility construction site that are used only episodically and for very short durations over the life of the project, provided other exit point controls are implemented to minimize sediment track-out.

Additionally, a record must be kept with the SWPPP throughout construction of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated.

At a minimum, controls must be coordinated, installed and maintained to:

- 1. Minimize the amount of soil exposed during construction activity.
- 2. Minimize the disturbance of steep slopes.
- 3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible.
- 4. Minimize soil compaction and, unless infeasible, preserve topsoil.

<u>Note</u>: For practices below, consult relevant design criteria in Chapter 41 of the BDE Manual and maintenance criteria in Erosion and Sediment Control Field Guide for Construction.

1. Erosion Control:

The following are erosion control practices which may be used on a project (place a check by each practice that will be utilized on the project, add additional practices as needed):

|       | Mulch                   |             | Preservation of existing vegetation    |
|-------|-------------------------|-------------|--|
| $\ge$ | Erosion Control Blanket | $\boxtimes$ | Temporary Turf Cover Mixture (Class 7) |
|       | Turf Reinforcement Mat  | $\boxtimes$ | Permanent seeding (Class 1-6)          |
|       | Sodding                 |             | Other (Specify)                        |
|       | Geotextile fabric       |             | Other (Specify)                        |
|       |                         |             | Other (Specify)                        |
|       |                         |             |  |

### 2. Sediment Control:

The following sediment control devices will be implemented on this project:

- Ditch Checks
- ☑ Inlet and Pipe protection
- Hay or Straw bales

Perimeter Erosion Barrier

| Rolled | Exce | sior |
|--------|------|------|
|        |      |      |

Silt Filter Fence

| Above grade inlet filters (fitted)  | Urethane foam/geotextiles     |
|---|-------------------------------|
| Above grade inlet filters (non-fitted)                                    | Other (Specify)               |
| Inlet filters   | Other (Specify)               |
|   | Other (Specify)               |
|   |                               |
| 3. <u>Structural Practices:</u>   |                               |
| Provide below is a description of structural practices that will be imple | emented:                      |
| Aggregate Ditch   | Stabilized Construction Exits |
| Articulated Block Revetment Mat   | Stabilized Trench Flow        |
| Barrier (Permanent)   | Sediment Basin                |
| Concrete Revetment Mats   | Retaining Walls               |
| Dewatering Filtering  | 🔀 Riprap                      |
| Gabions   | Strom Drain Inlet Protection  |
| In-Stream or Wetland Work   | Slope Walls                   |
| Level Spreaders   | Sediment Trap                 |
| Paved Ditch   | Other (Specify)               |
| Permanent Check Dams  | Other (Specify)               |
| Precast Block Revetment Mat   | Other (Specify)               |

Rock Outlet Protection

### 4. Polymer Flocculants

Design guidance for polymer flocculants is available in Chapter 41 of the BDE Manual. In addition, Polymer Flocculants may only be used by district Special Provision.

Other (Specify)

If polymer flocculants are used for this project, the following must be adhered to and described below:

- · Identify the use of all polymer flocculants at the site.
- Dosage of treatment chemicals shall be identified along with any information from any Material Safety Data Sheet.
- Describe the location of all storage areas for chemicals.
- Include any information from the manufacturer's specifications.
- Treatment chemicals must be stored in areas where they will not be exposed to precipitation.
- The SWPPP must describe procedures for use of treatment chemicals and staff responsible for use/application of treatment chemicals must be trained on the established procedures.

## Part V. Other Conditions

1. Dewatering

Will dewatering be required for this project?

If yes, the following applies:

- Dewatering discharges shall be routed through a sediment control (e.g., sediment trap or basin, pumped water filter bag) designed to minimize discharges with visual turbidity;
- The discharge shall not include visible floating solids or foam;
- The discharge must not cause the formation of a visible sheen on the water surface, or visible oily deposits on the bottom or shoreline of the receiving water. An oil-water separator or suitable filtration device shall be used to treat oil, grease, or other similar products if dewatering water is found to or expected to contain these materials;
- To the extent feasible, use well-vegetated (e.g., grassy or wooded), upland areas of the site to Infiltrate dewatering water before discharge;
- You are prohibited from using receiving waters as part of the treatment area;
- To minimize dewatering-related erosion and related sediment discharges. use stable. erosion-resistant surfaces (e.g., well-vegetated grassy areas, clean filler stone, geotextile underlayment) to discharge from dewatering controls. Do not place dewatering controls, such as pumped water filter bags, on steep slopes (15% or greater in grade);
- Backwash water (water used to backwash/clean any filters used as part of storm water treatment) must be properly treated or hauled off- site for disposal;
- · Dewatering treatment devices shall be properly maintained; and
- See Part XI (Inspections) for inspection requirement.

# Part VI. Permanent (i.e., Post-Construction) Storm Water Management Controls

Provided below is a description of measures that may be installed during the construction process to control volume and therefore the amount pollutants in storm water runoff that can occur after construction operations have been completed.

Practices may include but are not limited to the following:

- Aggregate ditch checks;
- bioswales,
- detention pond(s),
- infiltration trench;
- retention pond(s),
- · open vegetated swales and natural depressions,
- treatment train (sequential system which combine several practices).
- · Velocity dissipation devices (See Structural Practices above)

#### Describe these practices below

A bioretention basin is proposed to capture runoff from the proposed parking lot.

## Part VII. Additional Practices Incorporated From Local Ordinance(s)

In some instances, an additional practice from a local ordinance may be included in the project. If so, describe below (Note: the Department is not subject to local ordinances)

### Part VIII. Unexpected Regulated Substances/Chemical Spill Procedures

When Unexpected Regulated Substances or chemical spills occur, Article 107.19 of the Standard Specifications for Road and Bridge Construction shall apply. In addition, it is the contractor's responsibility to notify the Engineer in the event of a chemical spill into a ditch or waterway, the Engineer will then notify appropriate IEPA and IEMA personnel for the appropriate cleanup procedures.

## Part IX. Contractor Required Submittals

Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342A.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization time-frame
- · Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances and exits to be used and how they will be maintained)
- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- · Paving, saw-cutting, and any other pavement related operations
- · Major planned stockpiling operation
- Time frame for other significant long-term operations or activities that may plan non-storm water discharges as dewatering, grinding, etc.
- · Permanent stabilization activities for each area of the project

2. During the pre-construction meeting, the Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Temporary Ditch Checks Identify what type and the source of Temporary Ditch Checks that will be installed as part of the project. The installation details will then be included with the SWPPP.
- Vehicle Entrances and Exits Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material Delivery, Storage and Use- Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project. Specifically, any chemical stored in a 55 gallon drum provided by the contractor.
- Stockpile Management Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent
  pollution of storm water from stockpiles.
- Waste Disposal Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control Discuss steps that will be taken in the event of a material spill.
- Concrete Residuals and Washout Wastes Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Fueling Identify equipment fueling locations for this project and what BMPs will be used to ensure

containment and spill prevention.

- Vehicle and Equipment Cleaning and Maintenance Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Dewatering Activities Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.

Additional measures indicated in the plan

## Part X. Maintenance

It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications. However, when requested by the Contractor, the Resident Engineer will provide general maintenance guides (e.g., IDOT Erosion and Sediment Control Field Guide) to the Contractor for the practices associated with this project. Any damage or undermining shall be repaired immediately.

For Inlet Protection: Where there is evidence of sediment accumulation adjacent to the inlet protection measure, the deposited sediment must be removed by the following business day.

Below, describe procedures to maintain in good and effective operating conditions The Resident Engineer will conduct regular inspections as described in Section IV.

# Part XI. Inspections

Qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm or by the end of the following business or workday that is 0.50 inches or greater or equivalent snowmelt (except as allowed for Frozen Conditions).

In addition, all areas where storm water typically flows within the site should be inspected periodically to check for evidence of pollutants entering the drainage system, as well as all locations where stabilization measures have been implemented to ensure they are operating correctly.

Inspections shall be documented on the form BC 2259 (Storm Water Pollution Prevention Plan Erosion Control Inspection Report).

The Erosion and Sediment Control Field Guide for Construction Inspection shall be consulted as needed.

### Dewatering

For site(s) discharging dewatering water, an inspection during the discharge shall be done once per day on which the discharge occurs and record the following in a report within 24 hours of completing the Inspection:

- The inspection date;
- Names and titles of personnel performing the inspection;
- Approximate times that the dewatering discharge began and ended on the day of inspection;
- Estimates of the rate (in gallons per day) of discharge on the day of inspection;
- Whether or not any of the following indications of pollutant discharge were observed at the point of discharge: a sediment plume, suspended solids. unusual color, presence of odor, decreased clarity, or presence of foam; and/or a visible sheen on the water surface or visible oily deposits on the bottom or shoreline of the receiving water.

### Frozen Conditions

Inspections may be reduced to once per month when all construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities resume, either temporarily or continuously, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

#### Flooding or unsafe conditions

Areas that are inaccessible during required inspections due to flooding or other unsafe conditions must be inspected within 72 hours of

# Part XII. Incidence of Noncompliance (ION)

The Department shall notify the appropriate Agency Field Operations Section office by email as described on the IEPA ION form, within 24 hours of any incidence of noncompliance for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit.

The Department shall complete and submit within 5 days an "Incidence of Noncompliance" (ION) report for any violation of the storm water pollution prevention plan observed during any Inspection conducted, or for violations of any condition of this permit. Submission shall be on forms provided by the IEPA and include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. Corrective actions must be undertaken immediately to address the identified non-compliance issue(s).

Illinois EPA 2520 W. Iles Ave./P.O. Box 19276 Springfield, IL 62794-9276

Please note that if these are delivered via FedEx or UPS, these carriers cannot deliver to our P.O. Box and this number must be excluded from the mailing address.

## Part XIII. Corrective Actions

Corrective actions must be taken when:

- A storm water control needs repair or replacement;
- A storm water control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly;
- Discharges are causing an exceedance of applicable water quality standards; or
- A prohibited discharge has occurred.

Corrective Actions must be completed as soon as possible and documented within 7 days in an Inspection Report or report of noncompliance. If it is infeasible to complete the installation or repair within 7 calendar days, it must be documented in the records why it is infeasible to complete the installation or repair within the 7 day time-frame and document the schedule for installing the storm water control(s) and making it operational as soon as feasible after the 7-day time-frame. In the event that maintenance is required for the same storm water control at the same location three or more times, the control must be repaired in a manner that prevents continued failure to the extent feasible, and it must be documented the condition and how it was repaired in the records. Alternatively, it must be documented why the specific re-occurrence of this same issue must continue to be addressed as a routine maintenance fix.

## Part XIV. Retention of Records

The Department must retain copies of the SWPPP and all reports and notices required by this permit, records of all data used to complete the NOI to be covered by this permit, and the Agency Notice of Permit Coverage letter for at least three years from the date that the permit coverage expires or is terminated. the permittee must retain a copy of the SWPPP and any revisions to the SWPPP required by this permit at the construction site from the date of project initiation to the date of final stabilization. Any manuals or other documents referenced in the SWPPP must also be retained at the construction site.

## Part XV. Failure to Comply

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the contractor (See Article 105.03 Conformity with Contract)

## Part XVI. Keeping the SWPPP ("plan") Current

IDOT shall amend the plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to Waters of the United States and which has not otherwise been addressed in the

plan or if the plan proves to be ineffective in eliminating or significantly minimizing sediment and/or pollutants identified under paragraph Part II. Water Quality or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with construction site activity.

In addition, the plan shall be amended to identify any new contractor and/or subcontractor that will implement a measure of the plan. Amendments to the plan may be reviewed by the IEPA the same manner as the SWPPP and Erosion and Sediment Control Plan (ESCP) submitted as part of the Notice of Intent (NOI). The SWPPP and site map must be modified within <u>7 days</u> for any changes to construction plans, storm water controls or other activities at the site that are no longer accurately reflected in the SWPPP.

In addition, the NOI shall be modified using the CDX system for any substantial modifications to the project such as:

- address changes
- new contractors
- area coverage
- additional discharges to Waters of the United States, or
- other substantial modifications (e.g. addition of dewatering activities.

The notice of intent shall be modified within 30 days of the modification to the project.

### Part XVII: Notifications

In addition to the NOI submitted to IEPA, all MS4 permittees identified in Part I. Site Description shall receive a copy of the NOI.

## Part XVIII. Notice of Termination

Where a site has completed final stabilization and all storm water discharges from construction activities that are authorized by this permit are eliminated, the permittee must submit a completed Notice of Termination (NOT) that is signed in accordance with ILR10 permit.

Method of Measurement: NPDES Compliance shall not be measured for payment separately. Measurement for payment for Temporary Erosion and Sediment Control shall be in accordance with Section 280 or as otherwise provided in the contract. Permanent BMPs necessary to comply with this provision shall be measured for payment in accordance with their respective provisions in the contract.

Basis of Payment: NPDES Compliance shall not be paid for separately. Payment for Temporary Erosion and Sediment Control shall be in accordance with Section 280 or as otherwise provided in the contract. Permanent BMPs necessary to comply with this provision shall be paid for in accordance with their respective payment provisions in the contract.





Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

| Route                | Marked Route     | Section Number  |
|----------------------|------------------|-----------------|
| L&N AVE AND UNION ST | Illinois Route 4 | 21-00028-00-BT  |
| Project Number       | County           | Contract Number |
|                      | St. Clair        | 97863           |

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Additionally, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

| Contractor |
|------------|
| Contractor |

Sub-Contractor

| Signature   | Date                |  |
|---|---------------------|--|
|   |                     |  |
| Print Name  | Title               |  |
|   |                     |  |
| Name of Firm  | Phone               |  |
|   |                     |  |
| Street Address  | City State Zip Code |  |
|   |                     |  |
| Items which this Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP |                     |  |
|   |                     |  |
|   |                     |  |
|   |                     |  |

### **IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION** Effective: August 1, 2012 Revised: February 2, 2017

In addition to the Contractor's equal employment opportunity (EEO) affirmative action efforts undertaken as required by this Contract, the Contractor is encouraged to participate in the incentive program described below to provide additional on-the-job training to certified graduates of the IDOT pre-apprenticeship training program, as outlined in this Special Provision.

IDOT funds, and various Illinois community colleges operate, pre-apprenticeship training programs throughout the State to provide training and skill-improvement opportunities to promote the increased employment of minority groups, disadvantaged persons and women in all aspects of the highway construction industry. The intent of this IDOT Pre-Apprenticeship Training Program Graduate (TPG) special provision (Special Provision) is to place these certified program graduates on the project site for this Contract in order to provide the graduates with meaningful on-the-job training. Pursuant to this Special Provision, the Contractor must make every reasonable effort to recruit and employ certified TPG trainees to the extent such individuals are available within a practicable distance of the project site.

Specifically, participation of the Contractor or its subcontractor in the Program entitles the participant to reimbursement for graduates' hourly wages at \$15.00 per hour per utilized TPG trainee, subject to the terms of this Special Provision. Reimbursement payment will be made even though the Contractor or subcontractor may also receive additional training program funds from other non-IDOT sources for other non-TPG trainees on the Contract, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving reimbursement from another entity through another program, such as IDOT through the TPG program. With regard to any IDOT funded construction training program other than TPG, however, additional reimbursement for other IDOT programs will not be made beyond the TPG Program described in this Special Provision when the TPG Program is utilized.

No payment will be made to the Contractor if the Contractor or subcontractor fails to provide the required on-site training to TPG trainees, as solely determined by IDOT. A TPG trainee must begin training on the project as soon as the start of work that utilizes the relevant trade skill and the TPG trainee must remain on the project site through completion of the Contract, so long as training opportunities continue to exist in the relevant work classification. Should a TPG trainee's employment end in advance of the completion of the Contract, the Contractor must promptly notify the IDOT District EEO Officer for the Contract that the TPG's involvement in the Contract has ended. The Contractor must supply a written report for the reason the TPG trainee involvement terminated, the hours completed by the TPG trainee on the Contract, and the number of hours for which the incentive payment provided under this Special Provision will be, or has been claimed for the separated TPG trainee.

Finally, the Contractor must maintain all records it creates as a result of participation in the Program on the Contract, and furnish periodic written reports to the IDOT District EEO Officer that document its contractual performance under and compliance with this Special Provision. Finally, through participation in the Program and reimbursement of wages, the Contractor is not relieved of, and IDOT has not waived, the requirements of any federal or state labor or employment law applicable to TPG workers, including compliance with the Illinois Prevailing Wage Act.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of \$15.00 per hour for each utilized certified TPG Program trainee (TRAINEES TRAINING PROGRAM GRADUATE). The estimated total number of hours, unit price, and total price must be included in the schedule of prices for the Contract submitted by Contractor prior to beginning work. The initial number of TPG trainees for which the incentive is available for this contract is <u>1</u>.

The Department has contracted with several educational institutions to provide screening, tutoring and pre-training to individuals interested in working as a TPG trainee in various areas of common construction trade work. Only individuals who have successfully completed a Pre-Apprenticeship Training Program at these IDOT approved institutions are eligible to be TPG trainees. To obtain a list of institutions that can connect the Contractor with eligible TPG trainees, the Contractor may contact: HCCTP TPG Program Coordinator, Office of Business and Workforce Diversity (IDOT OBWD), Room 319, Illinois Department of Transportation, 2300 S. Dirksen Parkway, Springfield, Illinois 62764. Prior to commencing construction with the utilization of a TPG trainee, the Contractor must submit documentation to the IDOT District EEO Officer for the Contract that provides the names and contact information of the TPG trainee(s) to be trained in each selected work classification, proof that that the TPG trainee(s) has successfully completed a Pre-Apprenticeship Training Program approved by the U.S. Department of Labor Bureau of Apprenticeship Training, and the start date for training in each of the applicable work classifications.

To receive payment, the Contractor must provide training opportunities aimed at developing a full journeyworker in the type of trade or job classification involved. During the course of performance of the Contract, the Contractor may seek approval from the IDOT District EEO Officer to employ additional eligible TPG trainees. In the event the Contractor subcontracts a portion of the contracted work, it must determine how many, if any, of the TPGs will be trained by the subcontractor. Though a subcontractor may conduct training, the Contractor retains the responsibility for meeting all requirements imposed by this Special Provision. The Contractor must also include this Special Provision in any subcontract where payment for contracted work performed by a TPG trainee will be passed on to a subcontractor.

Training through the Program is intended to move TPGs toward journeyman status, which is the primary objective of this Special Provision. Accordingly, the Contractor must make every effort to enroll TPG trainees by recruitment through the Program participant educational institutions to the extent eligible TPGs are available within a reasonable geographic area of the project. The Contractor is responsible for demonstrating, through documentation, the recruitment efforts it has undertaken prior to the determination by IDOT whether the Contractor is in compliance with this Special Provision, and therefore, entitled to the Training Program Graduate reimbursement of \$15.00 per hour.

Notwithstanding the on-the-job training requirement of this TPG Special Provision, some minimal off-site training is permissible as long as the offsite training is an integral part of the work of the contract, and does not compromise or conflict with the required on-site training that is central to the purpose of the Program. No individual may be employed as a TPG trainee in any work classification in which he/she has previously successfully completed a training program leading to journeyman status in any trade, or in which he/she has worked at a journeyman level or higher.

## 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                              |                 |
| (b) | Water                               |                 |
| (c) | Hydrated Lime                       |                 |
| (d) | By-Product, Hydrated Lime           |                 |
| (e) | By-Product, Non-Hydrated Lime       |                 |
| (f) | Lime Slurry                         |                 |
| (g) | Fly Ash                             |                 |
| (h) | Soil for Soil Modification (Note 1) |                 |
| (i) | Bituminous Materials (Note 2)       |                 |

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:

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

"(i) Ground Granulated Blast Furnace (GGBF) Slag ......1010"

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)                  |                 |
| (b) Soil for Soil-Cement Base Course |                 |
| (c) Water                            |                 |
| (d) Bituminous Materials (Note 2)    |                 |

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                     |             |                 |
| (b) Water                      |             |                 |
| (c) Fine Aggregate             |             |                 |
| (d) Bituminous Material (Tack  | Coat)       |                 |
| (e) Emulsified Asphalts (Note  | 1) (Note 2) |                 |
| (f) Fiber Modified Joint Seale | r           |                 |
| (a) Additives (Note 3)         |             |                 |

(g) Additives (Note 3)

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

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

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

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

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

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

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

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

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

Revise Article 583.01 of the Standard Specifications to read:

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

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

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  $^{\circ}$ F (7  $^{\circ}$ 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 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 (Na<sub>2</sub>O +  $0.658K_2O$ ) 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 (Na<sub>2</sub>O + 0.658K<sub>2</sub>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 (Na<sub>2</sub>O + 0.658K<sub>2</sub>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 |                 |
| (b) \ | Water  |                 |

| (c) | Fine Aggregate for Controlled Low-Strength Material (CLSM) | 1003.06 |
|-----|--|---------|
| (d) | Fly Ash  | 1010    |
| (e) | Ground Granulated Blast Furnace (GGBF) Slag                | 1010    |
| (f) | Administration (Note 1)                                    |         |

(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 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 blastfurnace 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 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.

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 ASHTO 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                                      |                 |
| (b) | Water                                       |                 |
| (c) | Fine Aggregate                              |                 |
| (d) | Fly Ash                                     |                 |
| (e) | Ground Granulated Blast Furnace (GGBF) Slag |                 |
| (f) | Concrete Admixtures                         |                 |

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                                      |                 |
| (b) Fly Ash                                     |                 |
| (c) Ground Granulated Blast Furnace (GGBF) Slag |                 |
| (d) Water                                       |                 |
| (e) Fine Aggregate                              |                 |
| (f) Concrete Admixtures                         |                 |
| (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:

"<u>Description</u>. This work shall consist of filling voids beneath rigid and composite pavements with cement grout.

<u>Materials</u>. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications:

|     | Item  | Article/Section |
|-----|---|-----------------|
| (a) | Cement                                      |                 |
| (b) | Water                                       |                 |
| (c) | Fly Ash                                     |                 |
| (d) | Ground Granulated Blast Furnace (GGBF) Slag |                 |
| (e) | Admixtures                                  |                 |
| (f) | Packaged Rapid Hardening Mortar or Concrete |                 |

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."

80460

### COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017 Revised: April 1, 2019

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

- "(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.
  - (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
  - (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
  - (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

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

- "(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.
  - (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

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

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

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

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

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

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

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

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

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

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

Add the following to Section 109 of the Standard Specifications.

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

| Contract Type      | Cause of Delay                                  | Length of Delay   |
|--------------------|---|---|
| Working Days       | Article 108.04(b)(3) or<br>Article 108.04(b)(4) | No working days have been charged for two consecutive weeks.  |
| Completion<br>Date | Article 108.08(b)(1) or<br>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<br>Amount               | Supervisory and Administrative<br>Personnel   |
|---|---|
| Up to \$5,000,000                         | One Project Superintendent  |
| Over \$ 5,000,000 -<br>up to \$25,000,000 | One Project Manager,<br>One Project Superintendent or<br>Engineer, and<br>One Clerk |
| Over \$25,000,000 -<br>up to \$50,000,000 | One Project Manager,<br>One Project Superintendent,<br>One Engineer, and            |

|                   | One Clerk  |
|-------------------|--|
| Over \$50,000,000 | One Project Manager,<br>Two Project Superintendents, |
|                   | One Engineer, and<br>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."

80384

### CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010 Revised: January 1, 2025

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted according to the table below.

| Horsepower Range | Model Year and Older |
|------------------|----------------------|
| 50-99            | 2003                 |
| 100-299          | 2002                 |
| 300-599          | 2000                 |
| 600-749          | 2001                 |
| 750 and up       | 2005                 |

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

 a) Included on the U.S. Environmental Protection Agency (USEPA) Verified Retrofit Technology List (<u>https://www.epa.gov/verified-diesel-tech/verified-technologies-list-cleandiesel</u>),
 or verified by the California Air Bessuress Board (CAPB)

or verified by the California Air Resources Board (CARB) (<u>http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm</u>); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices 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. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

## **Diesel Retrofit Deficiency Deduction**

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

### DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000 Revised: January 2, 2025

- 1. <u>OVERVIEW AND GENERAL OBLIGATION</u>. 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. <u>CONTRACTOR ASSURANCE</u>. 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. <u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. 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 <u>18</u>% 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. <u>IDENTIFICATION OF CERTIFIED DBE</u>. 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. <u>BIDDING PROCEDURES</u>. 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. <u>UTILZATION PLAN EVALUATION</u>. 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. <u>CALCULATING DBE PARTICIPATION</u>. 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. <u>CONTRACT COMPLIANCE</u>. 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 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.

# **EROSION CONTROL BLANKET (BDE)**

Effective: August 1, 2025

Revise Article 251.02 of the Standard Specifications to read:

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

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

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

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

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

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

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

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

Revise Article 251.07 of the Standard Specifications to read:

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

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

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

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

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

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

Revise Article 1081.10 of the Standard Specifications to read:

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

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

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

- (b) Wildlife Friendly Erosion Control Blanket. Wildlife friendly erosion control blanket shall be according to Article 1081.10(a) except the netting shall be loose weave, also known as leno weave or gauze weave, with a moveable joint.
- (c) Wire Staples. Staples shall be made from No. 11 gauge or heavier uncoated black carbon steel wire, a minimum of 1 in. (25 mm) wide at the top and a minimum overall length of 8 in. (200 mm).
- (d) Wood Stakes. Hardwood blanket anchors shall be nominally 7 in. (180 mm) long from neck of hook to tip of anchor. The anchor shall have a minimum 1/2 in. (13 mm) curving hook to hold the blanket in place.
- (e) Turf Reinforcement Mat (TRM). The TRM shall be comprised of non-degradable, ultraviolet stabilized synthetic fibers, filaments, netting, and/or wire mesh processed into

a three-dimensional reinforced mat. The mats may include degradable material to assist with vegetation establishment. Soil filled mats will not be allowed.

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

The TRM shall meet the following physical and performance properties:

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

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

#### FUEL COST ADJUSTMENT (BDE)

Effective: April 1, 2009 Revised: August 1, 2017

<u>Description</u>. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

<u>General</u>. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

- (a) Categories of Work.
  - (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
  - (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
  - (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
  - (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any

modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.

- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.
- (b) Fuel Usage Factors.

| Category Fac  | ctor Units   |
|---|--|
| A - Earthwork 0.  | 34 gal / cu yd   |
| B – Subbase and Aggregate Base courses 0.   | 62 gal / ton   |
| C – HMA Bases, Pavements and Shoulders 1.   | 05 gal / ton   |
| D – PCC Bases, Pavements and Shoulders 2.   | 53 gal / cu yd   |
| E – Structures 8.   | 00 gal / \$1000  |
| Metric UnitsCategoryFacA - Earthwork1.1B - Subbase and Aggregate Base courses2.3C - HMA Bases, Pavements and Shoulders4.3D - PCC Bases, Pavements and Shoulders12.3E - Structures30.3 | ctor Units<br>68 liters / cu m<br>58 liters / metric ton<br>37 liters / metric ton<br>52 liters / cu m<br>28 liters / \$1000 |

(c) Quantity Conversion Factors.

| Category | Conversion                         | Factor   |
|----------|------------------------------------|--|
| В        | sq yd to ton<br>sq m to metric ton | 0.057 ton / sq yd / in depth<br>0.00243 metric ton / sq m / mm depth |
| С        | sq yd to ton<br>sq m to metric ton | 0.056 ton / sq yd / in depth<br>0.00239 m ton / sq m / mm depth      |
| D        | sq yd to cu yd<br>sq m to cu m     | 0.028 cu yd / sq yd / in depth<br>0.001 cu m / sq m / mm depth       |

Method of Adjustment. Fuel cost adjustments will be computed as follows.

 $CA = (FPI_P - FPI_L) \times FUF \times Q$ 

| where: CA = Cost Adjustment, \$ | Where: | CA | = Cost Adjustment, \$ |
|---------------------------------|--------|----|-----------------------|
|---------------------------------|--------|----|-----------------------|

- FPI<sub>P</sub> = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
- FPI<sub>L</sub> = Fuel 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, \$/gal (\$/liter)
- FUF = Fuel Usage Factor in the pay item(s) being adjusted
- Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

<u>Basis of Payment</u>. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the  $FPI_L$  and  $FPI_P$  in excess of five percent, as calculated by:

Percent Difference = { $(FPI_L - FPI_P) \div FPI_L$ } × 100

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

## HOT-MIX ASPHALT (BDE)

Effective: January 1, 2024 Revised: January 1, 2025

Revise the first and second paragraphs of Articles 1030.06(c)(2) of the Standard Specifications to read:

"(2) Personnel. The Contractor shall provide a QC Manager who shall have overall responsibility and authority for quality control. This individual shall maintain active certification as a Hot-Mix Asphalt Level II technician.

In addition to the QC Manager, the Contractor shall provide sufficient personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. Mix designs shall be developed by personnel with an active certification as a Hot-Mix Asphalt Level III technician. Technicians performing mix design testing and plant sampling/testing shall maintain active certification as a Hot-Mix Asphalt Level III technician active certification as a Hot-Mix Asphalt Level I technician. The Contractor may provide a technician trainee who has successfully completed the Department's "Hot-Mix Asphalt Level I technician for a period of one year after the course completion date. The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Hot-Mix Asphalt Level II Technician. The Contractor shall provide a Hot-Mix Asphalt Density Tester who has successfully completed the Department's "Nuclear Density Testing" course to run all nuclear density tests on the job site."

Revise the second paragraph of Articles 1030.07(a)(11) and 1030.08(a)(9) of the Standard Specifications to read:

"When establishing the target density, the HMA maximum theoretical specific gravity  $(G_{mm})$  will be based on the running average of four available Department test results for that project. If less than four  $G_{mm}$  test results are available, an average of all available Department test results for that project will be used. The initial  $G_{mm}$  will be the last available Department test result from a QMP project. If there is no available Department test result from a QMP project. If there is no available Department test result from a QMP project, the Department mix design verification test result will be used as the initial  $G_{mm}$ ."

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

"(2) The Contractor shall complete split verification sample tests listed in the Limits of Precision table in Article 1030.09(h)(1)."

In the Supplemental Specifications, replace the revision for the end of the third paragraph of Article 1030.09(h)(2) with the following:

"When establishing the target density, the HMA maximum theoretical specific gravity  $(G_{mm})$  will be the Department mix design verification test result."

Revise the tenth paragraph of Article 1030.10 of the Standard Specifications to read:

"Production is not required to stop after a test strip has been constructed."

## ILLINOIS WORKS APPRENTICESHIP INITIATIVE – STATE FUNDED CONTRACTS (BDE)

Effective: June 2, 2021 Revised: April 2, 2024

<u>Illinois Works Jobs Program Act (30 ILCS 559/20-1 et seq.)</u>. 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.

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.

## PAVEMENT MARKING INSPECTION (BDE)

Effective: April 1, 2025

Revise the second sentence of the first paragraph of Article 780.13 of the Standard Specifications to read:

"In addition, thermoplastic, preformed plastic, epoxy, preformed thermoplastic, polyurea, and modified urethane pavement markings will be inspected following a winter performance period that extends from November 15 to April 1 of the next year."

## 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, ΔTc,<br>40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | -5 °C min. |

(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 styrenebutadiene 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)<br>Modified Asphalt Binders   |   |   |  |
|---|---|---|--|
| Test  | Asphalt Grade<br>SB/SBS PG 64-28<br>SB/SBS PG 70-22 | Asphalt Grade<br>SB/SBS PG 64-34<br>SB/SBS PG 70-28<br>SB/SBS PG 76-22<br>SB/SBS PG 76-28 |  |
| Separation of Polymer<br>ITP, "Separation of Polymer from<br>Asphalt Binder"<br>Difference in °F (°C) of the softening<br>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<br>ASTM D 6084, Procedure A,<br>77 °F (25 °C), 100 mm elongation, %  | 60 min.   | 70 min.   |  |

| Table 2 - Requirements for Styrene-Butadiene Rubber (SBR)<br>Modified Asphalt Binders |   |   |
|---|---|---|
| Test  | Asphalt Grade<br>SBR PG 64-28<br>SBR PG 70-22 | Asphalt Grade<br>SB/SBS PG 64-34<br>SB/SBS PG 70-28<br>SBR PG 76-22<br>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.), inlbs (N-m)  | 110 (12.5) min.                               | 110 (12.5) min.   |
| Tenacity<br>ASTM D 5801, 77 °F (25 °C),   |   |   |
| 20 in./min. (500 mm/min.), inlbs (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)<br>Modified Asphalt Binders                      |   |   |  |
|--|---|---|--|
| Test   | Asphalt Grade<br>GTR PG 64-28<br>GTR PG 70-22 | Asphalt Grade<br>GTR PG 76-22<br>GTR PG 76-28<br>GTR PG 70-28 |  |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)                                     |   |   |  |
| Elastic Recovery<br>ASTM D 6084, Procedure A,<br>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 |               |             |
|--|---------------|-------------|
|  | Asphalt Grade |             |
|  | SM PG 46-28   | SM PG 46-34 |
| Test   | 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, ΔTc, 40 hrs PAV (40 hrs                                 | -5°C min.     |             |
| continuous or 2 PAV at 20 hrs)                               |               |             |
| Large Strain Parameter (Illinois Modified                    |               |             |
| AASHTO T 391) DSR/LAS Fatigue                                |               | S E 4 9/    |
| Property, Δ G* peak τ, 40 hrs PAV                            |               | 2 04 70     |
| (40 hrs continuous or 2 PAV at 20 hrs)                       |               |             |

The following grades may be specified as tack coats.

| 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 % <sup>1/2/</sup>   |    |    |    |
|--|----|----|----|
| Ndesign         Binder         Surface         Polymer Modified           Binder         Surface         Binder or Surface |    |    |    |
| 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 % <sup>1/2/</sup> |    |   |    |
|---|----|---|----|
| Ndesign Binder Surface                                |    | Polymer Modified<br>Binder or Surface <sup>3/</sup> |    |
| 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  $\pm 0.40$  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 III. 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.

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

| Class | – Туре                            | Seeds   | lb/acre (kg/hectare) |
|-------|-----------------------------------|---|----------------------|
| 4     | Native Grass 2/ 6/                | Andropogon gerardi<br>(Big Blue Stem) 5/              | 4 (4)                |
|       |                                   | Schizachyrium scoparium<br>(Little Blue Stem) 5/      | 5 (5)                |
|       |                                   | <i>Bouteloua curtipendula</i><br>(Side-Oats Grama) 5/ | 5 (5)                |
|       |                                   | Elymus canadensis<br>(Canada Wild Rye) 5/             | 1 (1)                |
|       |                                   | Panicum virgatum (Switch Grass) 5/                    | 1 (1)                |
|       |                                   | Sorghastrum nutans (Indian Grass) 5/                  | 2 (2)                |
|       |                                   | Annual Ryegrass                                       | 25 (25)              |
|       |                                   | Oats, Spring<br>Perennial Rvegrass                    | 25 (25)<br>15 (15)   |
| 4A    | Low Profile<br>Native Grass 2/ 6/ | Schizachyrium scoparium<br>(Little Blue Stem) 5/      | 5 (5)                |
|       |                                   | Bouteloua curtipendula<br>(Side-Oats Grama) 5/        | 5 (5)                |
|       |                                   | Elymus canadensis<br>(Canada Wild Rve) 5/             | 1 (1)                |
|       |                                   | Sporobolus heterolepis<br>(Prairie Dropseed) 5/       | 0.5 (0.5)            |
|       |                                   | Annual Ryegrass                                       | 25 (25)              |
|       |                                   | Oats, Spring  | 25 (25)<br>15 (15)   |
| 4B    | Wetland Grass and                 | Annual Ryegrass                                       | 25 (25)              |
|       | Sedge Mixture 2/ 6/               | Oats, Spring  | 25 (25)              |
|       | Ŭ                                 | Wetland Grasses (species below) 5/                    | 6 (6)                |
|       | <u>Species:</u>                   |   | <u>% By Weight</u>   |
|       | Calamagrostis cana                | <i>densis</i> (Blue Joint Grass)                      | 12                   |
|       | <i>Carex lacustris</i> (Lak       | e-Bank Sedge)   | 6                    |
|       | Carex slipata (Awl-F              | ruited Sedge)   | 6                    |
|       | Carex stricta (Tusso              | ck Sedge)   | 6                    |
|       |                                   | -ox Seage)<br>- (Needle Spike Buch)                   | 6                    |
|       | Eleocharis acicularis             | Rivet Spike Rush)                                     | 3                    |
|       | Glyceria striata (Eow             | d Manna Grass)  | 14                   |
|       | Juncus effusus (Con               | nmon Rush)  | 6                    |
|       | Juncus tenuis (Slend              | der Rush)   | 6                    |
|       | Juncus torreyi (Torre             | ey's Rush)  | 6                    |
|       | Leersia oryzoides (F              | Rice Cut Grass)                                       | 10                   |
|       | Scirpus acutus (Har               | d-Stemmed Bulrush)                                    | 3                    |
|       | Scirpus atrovirens ([             | Dark Green Rush)                                      | 3                    |
|       | Bolboschoenus fluvi               | atilis (River Bulrush)                                | 3                    |
|       | Schoenoplectus tab                | ernaemontani (Sottstem Bulrush)                       | 3                    |
|       | Spartina pectinata (0             | Jora Grass)   | 4                    |

| Class - | - Туре  | Seeds  | lb/acre (kg/hectare) |
|---------|---|--|----------------------|
| 5       | Forb with<br>Annuals Mixture 2/ 5/ 6  | Annuals Mixture (Below)<br>6/ Forb Mixture (Below)   | 1 (1)<br>10 (10)     |
|         | Annuals Mixture - Mi<br>any   | xture not exceeding 25 % by weight of one species, of the following:   |                      |
|         | Coreopsis lanceola<br>Leucanthemum ma<br>Gaillardia pulchella<br>Ratibida columnife<br>Rudbeckia hirta (Bl  | ta (Sand Coreopsis)<br>eximum (Shasta Daisy)<br>(Blanket Flower)<br>ra (Prairie Coneflower)<br>ack-Eyed Susan)   |                      |
|         | Forb Mixture - Mixtur<br>any one  | e not exceeding 5 % by weight PLS of species, of the following:  |                      |
|         | Amorpha canescer<br>Anemone cylindrica<br>Asclepias tuberosa<br>Aster azureus (Sky<br>Symphyotrichum le<br>Aster novae-anglia<br>Baptisia leucantha<br>Coreopsis palmata<br>Echinacea pallida (<br>Eryngium yuccifoliu<br>Helianthus mollis (I<br>Heliopsis heliantho<br>Liatris aspera (Rou<br>Liatris pycnostachy<br>Monarda fistulosa (<br>Parthenium integrit<br>Dalea candida (Wh<br>Dalea purpurea (Pu<br>Physostegia virgini<br>Potentilla arguta (P | <ul> <li>species, of the following:</li> <li>as (Lead Plant) 4/</li> <li>a (Thimble Weed)</li> <li>(Butterfly Weed)</li> <li>Blue Aster)</li> <li>ave (Smooth Aster)</li> <li>e (New England Aster)</li> <li>(White Wild Indigo) 4/</li> <li>(Prairie Coreopsis)</li> <li>Pale Purple Coneflower)</li> <li>um (Rattlesnake Master)</li> <li>Downy Sunflower)</li> <li>ides (Ox-Eye)</li> <li>gh Blazing Star)</li> <li>ra (Prairie Blazing Star)</li> <li>Prairie Bergamot)</li> <li>olium (Wild Quinine)</li> <li>ite Prairie Clover) 4/</li> <li>ang (False Dragonhead)</li> <li>rairie Cinquefoil)</li> </ul> |                      |
|         | Ratibida pinnata (Y<br>Rudbeckia subtom<br>Silphium laciniatun<br>Silphium terebinthi   | ellow Coneflower)<br>entosa (Fragrant Coneflower)<br>o (Compass Plant)<br>naceum (Prairie Dock)  |                      |
|         | Oligoneuron rigidu<br>Tradescantia ohier<br>Veronicastrum virg  | <i>n</i> (Rigid Goldenrod)<br><i>sis</i> (Spiderwort)<br><i>inicum</i> (Culver's Root)   |                      |

| Class · | – Туре  | Seeds  | lb/acre (kg/hectare)  |
|---------|---|--|---|
| 5A      | Large Flower Native<br>Forb Mixture 2/ 5/ 6/  | Forb Mixture (see below)   | 5 (5)   |
|         | <u>Species:</u><br>Aster novae-angliae (N<br>Echinacea pallida (Pale<br>Helianthus mollis (Dow<br>Heliopsis helianthoides<br>Liatris pycnostachya (P<br>Ratibida pinnata (Yellov<br>Rudbeckia hirta (Black-<br>Silphium laciniatum (Co<br>Silphium terebinthinace<br>Oligoneuron rigidum (P   | ew England Aster)<br>e Purple Coneflower)<br>ny Sunflower)<br>: (Ox-Eye)<br>Prairie Blazing Star)<br>w Coneflower)<br>: Eyed Susan)<br>ompass Plant)<br>eum (Prairie Dock)<br>tigid Goldenrod)   | <u>% By Weight</u><br>5<br>10<br>10<br>10<br>10<br>5<br>10<br>10<br>20<br>10  |
| 5B      | Wetland Forb 2/ 5/ 6/   | Forb Mixture (see below)   | 2 (2)   |
|         | <u>Species:</u><br>Acorus calamus (Swee<br>Angelica atropurpurea<br>Asclepias incarnata (Sv<br>Aster puniceus (Purple<br>Bidens cernua (Beggar<br>Eutrochium maculatum<br>Eupatorium perfoliatum<br>Helenium autumnale (A<br>Iris virginica shrevei (Bl<br>Lobelia cardinalis (Card<br>Lobelia siphilitica (Grea<br>Lythrum alatum (Winge<br>Physostegia virginiana<br>Persicaria pensylvanica<br>Persicaria lapathifolia (<br>Pychanthemum virginia<br>Rudbeckia laciniata (Cv<br>Oligoneuron riddellii (R<br>Sparganium eurycarpu | t Flag)<br>(Angelica)<br>wamp Milkweed)<br>Stemmed Aster)<br>ticks)<br>(Spotted Joe Pye Weed)<br>(Spotted Joe Pye Weed)<br>(Boneset)<br>Autumn Sneeze Weed)<br>(ue Flag Iris)<br>dinal Flower)<br>at Blue Lobelia)<br>ed Loosestrife)<br>(False Dragonhead)<br>a (Pennsylvania Smartweed)<br>Curlytop Knotweed)<br>anum (Mountain Mint)<br>ut-leaf Coneflower)<br>iddell Goldenrod)<br>m (Giant Burreed) | <u>% By Weight</u><br>3<br>6<br>2<br>10<br>7<br>7<br>2<br>2<br>2<br>5<br>5<br>5<br>2<br>5<br>5<br>10<br>10<br>5<br>5<br>2<br>5<br>5<br>2<br>5<br>5<br>5<br>2<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 6       | Conservation<br>Mixture 2/ 6/   | Schizachyrium scoparium<br>(Little Blue Stem) 5/<br>Elymus canadensis<br>(Canada Wild Rye) 5/<br>Buffalo Grass 5/ 7/<br>Vernal Alfalfa 4/<br>Oats, Spring  | 5 (5)<br>2 (2)<br>5 (5)<br>15 (15)<br>48 (55)   |
| 6A      | Salt Tolerant<br>Conservation<br>Mixture 2/ 6/  | Schizachyrium scoparium<br>(Little Blue Stem) 5/<br>Elymus canadensis<br>(Canada Wild Rye) 5/<br>Buffalo Grass 5/ 7/<br>Vernal Alfalfa 4/<br>Oats, Spring<br>Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)  | 5 (5)<br>2 (2)<br>5 (5)<br>15 (15)<br>48 (55)<br>20 (20)  |
| 7       | Temporary Turf<br>Cover Mixture   | Perennial Ryegrass<br>Oats, Spring   | 50 (55)<br>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 KNO<sub>3</sub> 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."

#### SIGN PANELS AND APPURTENANCES (BDE)

Effective: January 1, 2025 Revised: April 1, 2025

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

"(c) Aluminum Epoxy Mastic ......1008.03"

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

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

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

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

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

#### STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004 Revised: January 1, 2022

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, welded reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

SCA = Q X D

Where: SCA = steel cost adjustment, in dollars

Q = quantity of steel incorporated into the work, in lb (kg)

D = price factor, in dollars per lb (kg)

 $D = MPI_M - MPI_L$ 

- Where:  $MPI_M =$  The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).
  - MPI<sub>L</sub> = The Materials Cost Index for steel as published by the Engineering News-Record 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,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the  $MPI_M$  will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

<u>Basis of Payment</u>. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the  $MPI_{L}$  and  $MPI_{M}$  in excess of five percent, as calculated by:

Percent Difference = { $(MPI_L - MPI_M) \div MPI_L$ } × 100

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

| Attachment  |                               |  |  |
|---|-------------------------------|--|--|
| Item  | Unit Mass (Weight)            |  |  |
| Metal Piling (excluding temporary sheet piling)                                   |                               |  |  |
| Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness) | 23 lb/ft (34 kg/m)            |  |  |
| Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness) | 32 lb/ft (48 kg/m)            |  |  |
| Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness) | 37 lb/ft (55 kg/m)            |  |  |
| Other piling  | See plans                     |  |  |
| Structural Steel  | See plans for weights         |  |  |
|   | (masses)                      |  |  |
| Reinforcing Steel   | See plans for weights         |  |  |
|   | (masses)                      |  |  |
| Dowel Bars and Tie Bars   | 6 lb (3 kg) each              |  |  |
| Welded Reinforcement  | 63 lb/100 sq ft (310 kg/sq m) |  |  |
| Guardrail   |                               |  |  |
| Steel Plate Beam Guardrail, Type A w/steel posts                                  | 20 lb/ft (30 kg/m)            |  |  |
| Steel Plate Beam Guardrail, Type B w/steel posts                                  | 30 lb/ft (45 kg/m)            |  |  |
| Steel Plate Beam Guardrail, Types A and B w/wood posts                            | 8 lb/ft (12 kg/m)             |  |  |
| Steel Plate Beam Guardrail, Type 2  | 305 lb (140 kg) each          |  |  |
| Steel Plate Beam Guardrail, Type 6  | 1260 lb (570 kg) each         |  |  |
| Traffic Barrier Terminal, Type 1 Special (Tangent)                                | 730 lb (330 kg) each          |  |  |
| Traffic Barrier Terminal, Type 1 Special (Flared)                                 | 410 lb (185 kg) each          |  |  |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms                        |                               |  |  |
| Traffic Signal Post   | 11 lb/ft (16 kg/m)            |  |  |
| Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)                     | 14 lb/ft (21 kg/m)            |  |  |
| Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)                | 21 lb/ft (31 kg/m)            |  |  |
| Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m)                                    | 13 lb/ft (19 kg/m)            |  |  |
| Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)                                   | 19 lb/ft (28 kg/m)            |  |  |
| Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)                          | 31 lb/ft (46 kg/m)            |  |  |
| Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)                       | 65 lb/ft (97 kg/m)            |  |  |
| Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)                       | 80 lb/ft (119 kg/m)           |  |  |
| Metal Railings (excluding wire fence)   |                               |  |  |
| Steel Railing, Type SM  | 64 lb/ft (95 kg/m)            |  |  |
| Steel Railing, Type S-1   | 39 lb/ft (58 kg/m)            |  |  |
| Steel Railing, Type T-1   | 53 lb/ft (79 kg/m)            |  |  |
| Steel Bridge Rail   | 52 lb/ft (77 kg/m)            |  |  |
| Frames and Grates   |                               |  |  |
| Frame   | 250 lb (115 kg)               |  |  |
| Lids and Grates   | 150 lb (70 kg)                |  |  |

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## SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

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

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

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

#### SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017 Revised: April 1, 2019

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

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

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

## SUBMISSION OF BIDDERS LIST INFORMATION (BDE)

Effective: January 2, 2025 Revised: March 2, 2025

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

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

#### SUBMISSION OF PAYROLL RECORDS (BDE)

Effective: April 1, 2021 Revised: November 2, 2023

<u>FEDERAL AID CONTRACTS</u>. 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 <a href="https://lcptracker.com/">https://lcptracker.com/</a>. 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."

<u>STATE CONTRACTS</u>. 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 15<sup>th</sup> 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 <u>https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx</u>. 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 <a href="https://lcptracker.com/">https://lcptracker.com/</a>.

When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option ("No Work", "Suspended", or "Complete") selected."

# SURVEYING SERVICES (BDE)

Effective: April 1, 2025

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

Delete Section 668 of the Standard Specifications.

## TRAINING SPECIAL PROVISIONS (BDE)

Effective: October 15, 1975 Revised: September 2, 2021

This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be  $\underline{1}$ . In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also ensure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee it employs on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journeyman status or in which he or she has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.
The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor Employment Training Administration shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The Contractor shall provide for the maintenance of records and furnish periodic reports documenting its performance under this Training Special Provision.

For contracts with an awarded contract value of \$500,000 or more, the Contractor is required to comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules to the extent permitted by Section 20-20(g). For federally funded projects, the number of trainees to be trained under this contract, as stated in the Training Special Provisions, will be the established goal for the Illinois Works Apprenticeship Initiative 30 ILCS 559/20-20(g). The Contractor shall make a good faith effort to meet this goal. For federally funded projects, the Illinois Works Apprenticeship Initiative will be implemented using the FHWA approved OJT procedures. The Contractor must comply with the recordkeeping and reporting obligations of the Illinois Works Apprenticeship Initiative for the life of the project, including the certification as to whether the trainee/apprentice labor hour goals were met.

Method of Measurement. The unit of measurement is in hours.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price, and total price have been included in the schedule of prices.

#### 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:

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  $4 \times 6$  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."

# WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within <u>60</u> 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 <a href="http://www.state.il.us/agency/idol/">http://www.state.il.us/agency/idol/</a> 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.