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Letting June 13, 2025

Notice to Bidders, Specifications and Proposal

Illinois Department of Transportation

Contract No. 78985
JACKSON County
Section (12-1)SLP-1
Route FAP 331
Project PROT-6SW7(287)
District 9 Construction Funds

Prepared by

Checked by

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(Printed by authority of the State of Illinois)

Illinois Department of Transportation

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. June 13, 2025 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. 78985
   JACKSON County
   Section (12-1)SLP-1
   Project PROT-6SW7(287)
   Route FAP 331
   District 9 Construction Funds

   Slope repair on SN 039-0075 carrying IL 13 over the Big Muddy River, east of IL 127 in Murphysboro.

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 re-advertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Gia Biagi,
Acting Secretary

FAP Route 331 (IL 13)
Project PROT-6SW7(287)
Section (12-1)SLP-1
Jackson County
Contract No. 78985

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2025

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-22) (Revised 1-1-25)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAP Route 331 (IL 13), Project PROT-6SW7(287), Section (12-1)SLP-1, Jackson County, Contract No. 78985, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

FAP Route 331 (IL 13)
Project PROT-6SW7(287)
Section (12-1)SLP-1
Jackson County
Contract No. 78985

LOCATION OF PROJECT

The project is located at the bridges SN 039-0075 EB and SN 039-0076 WB carrying IL 13 over the Big Muddy River, east of Murphysboro in Jackson County.

DESCRIPTION OF PROJECT

This project involves installation of closely spaced large diameter open-ended pipe piles on both sides of the river, and construction of a set of median crossovers for the westbound lanes of IL 13. Also included is traffic control, earthwork, temporary drainage, jointed PCC pavement, subbase and seeding.

The eastbound bridge, SN 039-0075 and adjacent eastbound embankment on the west embankment of the Big Muddy River, is experiencing movement due to a ground slide. This project is meant to mitigate the active slide and protect both the EB and WB structures. A crossover on IL 13 for the eastbound lanes and a temporary pier support have been constructed under previous contracts. This contract will use the existing crossover on IL 13 for the eastbound lanes.

PRE-BID MEETING

A pre-bid meeting will be conducted for contractors to assist in the bidding process. The pre-bid meeting will be held at 10:00AM, Wednesday, May 28, 2025, at:

IDOT District 9 Office and Webex/Virtual Access Upstairs Planning Conference Room
2801 W Murphysboro Road Carbondale, IL 62901

The meeting will also offer a hybrid option to attend remotely. Please contact Dale Barclay at Dale.Barclay3@Illinois.gov to notify the Department of your in-person attendance or to request the virtual meeting invite. The pre-bid meeting attendance is voluntary for all prospective bidders.

The purpose of the pre-bid meeting is to provide prospective Contractors with additional context of the slope instability concerns and how this may impact the means and methods available. This will also provide an opportunity for contractors to ask questions and explore additional options that may not have been included in the contract documents.

UTILITIES

Effective 1984 Revised 2/15/23

Add the following after the first paragraph of Article 105.07:

Underground utilities have been plotted from available surveys and records and, therefore, their locations must be considered approximate only. There also may be utilities for which the locations are unknown. Verification of locations of underground utilities, shown or not shown, will be the responsibility of the Contractor. The following utility companies have facilities within the project limits which may require adjustment:

Name and Address of Utility	Type	Location	Estimated Adjustment Status
Ameren Illinois Electric 1800 W. Main Marion, IL 62959 ATTN: Rob Estes Tel: (618) 998-4560 Cell: (618) 924-0179 Email: restes@ameren.com	GAS ELECTRIC	THROUGHOUT	NO ADJUSTMENTS ANTICIPATED
Frontier Communications 208 West Union St. Marion, IL 62959 ATTN: Rick Shaw Tel: (618) 997-0253 Cell: (618) 967-5540 Email: rick.shaw@ftr.com	PHONE	THROUGHOUT	NO ADJUSTMENTS ANTICIPATED

Mediacom 1603 E. DeYoung St. Marion, IL. 62959 ATTN: Craig Thompson Tel: (270) 703-9490 Email: cthompson@mediacomcc.com	CATV	THROUGHOUT	NO ADJUSTMENTS ANTICIPATED
Murphysboro, City of 316 N. 12th Murphysboro, IL 62966 ATTN: Tim Lee Tel: (618) 684-2961 Email: Talee@murphysboro.com	SEWER WATER	THROUGHOUT	NO ADJUSTMENTS ANTICIPATED
Clearwave 2 N Vine St Harrisburg, IL 62946 ATTN: Jack Trusty Tel: (681) 841-9843 Email: jack.trusty@clearwavefiber.com	PHONE	THROUGHOUT	NO ADJUSTMENTS ANTICIPATED

Additional utility information may be obtained by calling the "Joint Utility Location Information for Excavators" phone number, 800-892-0123. This project is located in the Murphysboro Township.

Add the following after the first paragraph of Article 107.31:

The Contractor is advised that this project includes areas of highway illumination and/or signalized intersections. These areas have underground cable or conduit throughout which is to remain in service. Before driving any posts or beginning any excavation operations, the Contractor shall locate, uncover by hand and relocate any wiring which conflicts with the proposed work. Any cable or conduit which is damaged as a result of the Contractor's operations shall be replaced by him at his expense. Replacement material and methods shall meet or exceed the original specifications for the wiring. Splicing will not be permitted.

TRAFFIC CONTROL PLAN

Effective 1985 Revised 4/17/23

During the entire construction period, the road shall be kept open to traffic as follows:

- The highway shall be kept open to at least one lane of traffic in each direction at all times, and to two lanes of traffic in each direction to the greatest extent possible.
- Access to all public roads and private entrances shall be maintained during all stages of the work.

TEMPORARY ACCESS

The Contractor will be required to provide temporary access to the work area if needed. The work area shall be restored to original conditions upon completion of the work. Erosion control measures as defined in the SWPPP shall apply to the Contractor's temporary access areas also. This work will not be measured for payment and shall be included in the cost of the various pay items associated with the contract.

NOTIFICATION PRIOR TO STARTING WORK

Effective 12/05 Revised 2/10/17

Revise the first sentence of Article 107.09 Public Convenience and Safety to the following "The Contractor shall notify the Engineer at least 14 days in advance of starting any construction work. For projects involving width or height restrictions or complete closures of the roadway or ramp, an additional 7 days of notice (21 days total) will be required.

This additional notification is required so that the public can be notified of the pending construction.

SUBGRADE

Effective 1984 Revised 12/09/20

In addition to the provisions of Article 301.04 which require that the entire subgrade shall be compacted to not less than 95% of the standard laboratory density, in cut sections the top 6" of the subgrade shall not contain more than 120% of the optimum moisture determined in accordance with AASHTO T 99 (Method A or C). The cost of this work will not be paid for directly but shall be included in the cost of the various pay items for the pavement structure.

CHANGEABLE MESSAGE SIGN

Revised 4/15/20

This work consists of furnishing, placing, and maintaining changeable message sign(s) according to section 701 and the following:

A total of 3 changeable message signs shall be required in this contract. All signs must be in place and operational for a minimum of 14 calendar days prior to lane or roadway closures. Each sign shall state the day work will begin and delays are possible. The exact message will be approved by the Engineer. The Contractor may be required to relocate each sign multiple times during the contract at his or her expense. The exact location of the placement of these signs shall be determined in the field by the Engineer.

The furnishing, placing, and maintaining of portable changeable message sign(s) shall be paid for per CALENDAR DAY as CHANGEABLE MESSAGE SIGN.

STABILITY MONITORING DURING CONSTRUCTION

Description. To reduce the risk of instability during construction operations, IDOT will monitor for evidence of movement in survey prisms installed on the bridge structure and slope inclinometers installed through the embankments and riverbanks. IDOT will also perform visual assessments of the ground surface along with the Contractor's on-site personnel to identify possible surficial signs of distress. The slope inclinometers are present at the site and the survey prisms will be installed by IDOT. Monitoring readings will be performed by IDOT. Construction operations will be impacted if movement is detected.

Survey Prisms. Survey prisms will be installed by IDOT on each of the bridge piers for both structures. Readings will be performed for several months prior to construction to establish baseline measurements. An additional reading will be performed prior to construction operations. IDOT will survey prisms weekly during construction. During construction, observation of movement at the levels listed below will trigger impacts to construction as described below:

- If ½ inch(es) of movement is observed, IDOT will increase the frequency of monitoring to two times per week and perform visual inspections to identify any signs of distress.
- If 1 inch(es) of movement is observed, construction operations will be halted until a revised pile installation plan is approved by the Engineer.
- If 2 inch(es) of movement is observed, the affected structure(s) will be closed to traffic.

Slope Inclinometers. Nine slope inclinometers are present at the site, with six on the west side of the Big Muddy and three on the east side. The inclinometer casings extend from the ground surface down into the rock beneath the sandy soil. Baseline data is available from all inclinometers, with all having been installed in April 2024 or earlier. If significant new movement is observed in the inclinometer data, construction operations may be halted until a revised pile installation plan is approved by the Engineer.

Basis of Payment**.** This work will not be measured for payment and shall be included in the cost for the various pay items associated with the large diameter pipe pile foundation construction. If the Department requires a temporary work stoppage due to movement or other safety concerns, the Department will evaluate whether compensable delay costs shall be allowed.

LARGE DIAMETER PIPE PILE

Description: This work shall consist of furnishing and installing large diameter pipe piles.

Materials: Materials shall be according to the following.

Item:	Article/Section
(a) Metal Piling and Steel Casing	1006.05
(b) Sand	1003.01(a)(1)
(c) Rockfill	1005.01

Large Diameter Pipe Pile**.** All large diameter pipe pile shall be according to ASTM A 252, Grade 3, modified to 50 ksi minimum yield strength.

Pile Shoes**.** Pile shoes are not required. Depending on the installation method, cutting teeth may be desired by the Contractor. If cutting teeth are included, they must not protrude from the OD of the pipe pile by more than 0.25 inches. If cutting teeth are used, the cost will be considered incidental to the pile installation.

Equipment. Driving equipment, if used, shall be determined according to the Driving Equipment section herein.

Submittals**.** The following shall be submitted.

(a) Qualifications. At the time of the preconstruction conference, the Contractor shall provide the following documentation. The qualification requirements only apply if an impact system is used.

1) References. A list containing at least three projects completed within the three years prior to this project's bid date which the Contractor performing this work has installed driven pipe piles with a diameter exceeding 14 inches. The list of projects shall contain names and phone numbers of owner's representatives who can verify the Contractor's participation on those projects.

2) Experience. Name and experience record of the large diameter pipe pile supervisor, responsible for all facets of the pile installation, and the driving operator(s) who will be assigned to this project. The supervisor and operator(s) shall each have a minimum of three years of experience in the installation of driven pipe piles with a diameter exceeding 14 inches.

(b) If an impact hammer will be used, Wave Equation Analysis of Piles results shall be submitted as required in the Wave Equation Analysis of Piles special provision.

(c) Installation procedure. A detailed installation procedure shall be submitted to the Engineer for acceptance at least 45 days prior to installation of the large diameter

pipe piles and shall address each of the following items unless otherwise directed by the Engineer in writing.

1) Equipment List. List of proposed equipment to be used including cranes, installation equipment, inspection tools, etc.

2) General Sequence. Details of the overall construction operation sequence, equipment access and crane location, the sequence of individual pile installation, and the means to determine final tip termination in the field. The sequence of individual pile installation shall be developed to mitigate the risk of instability during construction, and shall be discussed during the preconstruction conference.

3) Sand Placement. Details of the procedure for placement of sand within the pile shall be included.

4) Detailed procedures for installing pipe pile monitoring equipment in select monitoring piles shall be included. The procedures shall satisfy the requirements of the special provision PIPE PILE MONITORING EQUIPMENT. If a pile installation system other than impact or vibratory driving is used, the Contractor shall propose alternative monitoring pile details to be approved by the Engineer.

The Engineer will evaluate the large diameter pipe pile installation procedure and notify the Contractor of acceptance, or the need for additional information. The Engineer will identify any concerns with the installation's effect on the existing or proposed structure(s).

(d) If an impact hammer will be used, Dynamic Testing and CAPWAP Analysis Reports shall be submitted as required in the Pile Dynamic Analyzer special provision.

Large Diameter Pipe Piles: Large diameter pipe piles shall consist of a steel pipe which is installed to the required depth in accordance with "Penetration of Piles" below and partially filled with sand. The walls of all pipes shall be of sufficient thickness, but not less than the minimum specified on the plans, to permit driving without distortion or damage.

(a) Splicing. Splicing of large diameter pipe piles shall be according to Article 512.04(a), substituting pipe(s) for shell(s). Planned splices shall be according to Article 512.04(a)(1), except planned splices shall not be located within the bottom 30 ft of the pile. All splices shall be accomplished by a complete joint penetration (CJP) butt weld of the entire cross-section, following the welding details shown on the plans. Welder qualification and certification will be required for all splices according to Article 512.07.

(b) Inspection. Inspection of large diameter pipe piles shall be according to Article 512.04(c), substituting pipe(s) for shell(s) and sand for concrete.

(c) Filling Pile. Prior to filling with sand, the large diameter pipe piles shall be inspected in accordance with Article 512.04(c). Pile shall be filled with sand from the top of the soil plug to the pile cutoff elevation. Sand for filling shall be fine aggregate in accordance

with Article 1003.01(a)(1). The gradation of the sand shall be in accordance with Gradation No. FA 1.

(d) Pile Cutoff. Pile shall be cut off 1 ft below adjacent ground surface.

(e) Fill above Pile Cutoff. The area around and above the pile cutoff elevation shall be backfilled to the adjacent ground surface. The backfill shall rockfill in accordance with Article 1004.01, material shall be coarse aggregate, gradation CA 11.

Monitoring Piles: Select piles indicated in the Plans shall be instrumented for monitoring. Monitoring equipment shall be installed in accordance with the special provision PIPE PILE MONITORING EQUIPMENT. Within one week of the completion of pile driving for each monitoring pile, the pile shall be backfilled and cut below grade as shown in the Plans, and the ShapeArray Housing shall be grouted with the top of conduit 6 inches above the top of pile.

Welding**:** Welding shall be according to Article 512.07.

Storage and Handling of Piles: Storage and handling of large diameter pipe piles shall be according to Article 512.08(d), substituting pipe(s) for shell(s).

Site Restoration: All material excavated or displaced to support construction activities (placement of crane mats, equipment, etc.) shall be restored prior to the end of construction.

Installation Equipment: Installation equipment shall be according to Article 512.10, with the following modifications.

(a) If an impact hammer is used, a Wave Equation Analysis of Pile (WEAP) Driving shall be performed for the large diameter pipe piles according to the special provision, WAVE EQUATION ANALYSIS OF PILES.

(b) If an impact hammer is used, high-strain dynamic testing utilizing a Pile Driving Analyzer (PDA) shall be performed on select large diameter pipe piles according to the special provision, PILE DRIVING ANALYZER TESTING. Piles to be tested include the first pile on each side of the Big Muddy River and two additional piles at the Engineer’s discretion.

(c) Vibratory hammers may be used for pile installation. The Contractor shall submit an installation plan to the Bureau of Bridges and Structures for approval. A minimum advancement rate of 2-inches per minute is required while utilizing a vibratory hammer. The Contractor shall monitor the effect of vibrations during driving to verify no settlement or horizontal movement has occurred of nearby structures, existing bridge piers, or bridge approach embankments by installing and monitoring targets on sensitive receptors within a 100’ radius. If movement is detected, installation shall immediately be halted and the Engineer shall be notified.

(d) Water and air jets shall not be allowed for the driving of large diameter pipe piles.

In addition to the modifications above, other methods of installation (e.g. rotating, pushing) may be considered with approval by the Engineer.

Penetration of Piles: Piles shall be installed to a penetration that satisfies any of the following.

(a) The pile tip elevation is at or below El. 286.

(b) The pile tip elevation is at or below El. 293, and practical or absolute refusal has occurred with an impact hammer delivering at least 120,000 ft-lbs of energy per blow ("E"). Practical refusal is defined as a pile penetration resistance (blow count) of 10 blows per inch for a maximum of 3 consecutive inches of pile penetration. Absolute refusal is defined as 20 blows for one inch or less of pile penetration. The Engineer will determine the value of "E" in accordance with Article 512.14 except no hammer energy reduction coefficient shall be applied.

(c) The pile tip elevation is at or below El. 291, and refusal with an approved vibratory hammer has occurred to the Engineer's satisfaction. Refusal with a vibratory hammer is defined as less than 2 inches of penetration per minute at full speed.

Tolerances in Driving: Piles shall be installed with a variation from the vertical of not more than 1/8 in./ft. Piles shall be driven to an accuracy where no portion of the visible pile is out of plan position by more than 3 in. in any direction.

Cutoffs**:** Cutoffs shall be according to Article 512.13.

Length of Piles**:** Length of piles shall be according to Article 512.16.

Method of Measurement: Furnishing large diameter pipe piles shall be measured for payment in feet. Measurement shall include the total length of piles delivered to the site of the work, according to the itemized list furnished by the Engineer, and any additional lengths delivered for splicing as ordered by the Engineer. Measurements will be made to the nearest 0.1 ft.

Installing piles shall be measured for payment in feet. Measurement will include the total length of piles subtracting cutoffs. Measurements will be made to the nearest 0.1 ft.

Sand for filling the large diameter pipe piles shall be measured for payment in place and the volume computed in cubic yards. The volume shall be determined based on the depth to the top of the soil plug from the adjacent ground surface and the cross-sectional area of the inside of the piles.

Basis of Payment: This work shall be paid for as follows.

(a) Furnishing Piles. This work will be paid for at the contract unit price per FOOT for FURNISHING METAL LARGE DIAMETER PIPE PILES, of the size specified.

(b) Driving Piles. This work will be paid for at the contract unit price per FOOT for INSTALLING LARGE DIAMETER PIPE PILES.

(c) Unplanned Splices. Unplanned splices for large diameter pipe piles will be paid for according to Article 109.04.

(d) Splices. Planned splices will be included in the cost of Installing Large Diameter Pipe Piles.

(e) Internal Excavation. The removal of water or debris inside of piles to the top of the soil plug will be included in the cost of Installing Large Diameter Pipe Piles.

(f) Sand. Sand infill from top of the soil plug to the top of pile shall be paid for at the contract unit price per CUBIC YARD for FURNISHING AND PLACING SANDFILL.

(g) Rockfill. Rockfill fill for above the pile cutoff to the adjacent ground surface shall be in the cost of Installing Large Diameter Pipe Piles.

(h) WEAP Analyses. WEAP analyses will be paid for according to the Wave Equation Analysis Of Pile Driving special provision.

(i) High-Strain Dynamic Testing of Piles. High-strain dynamic testing of piles with PDA equipment will be paid for according to the Pile Driving Analyzer Testing special provision.

(j) Site Restoration. Site restoration activities will be included in the cost of Installing Large Diameter Pipe Piles.

(k) Monitoring Piles. Costs associated with installation of monitoring equipment will be paid for according to the Pipe Pile Monitoring Equipment special provision.

(l) Any additional length of pipe pile, including splices, necessary to furnish and drive the pile through or adjacent to the bridge deck will not be measured or paid for separately and shall be included in the cost of related pay items for FURNISHING METAL LARGE DIAMETER PIPE PILES and INSTALLING LARGE DIAMTER PIPE PILES.

WAVE EQUATION ANALYSIS OF PILE DRIVING

Description. This work only applies if an impact hammer is used for pile installation. This work shall consist of conducting a wave equation analysis of pile (WEAP) Driving for the large diameter pipe pile installation on each side of the Big Muddy River, using the latest version of the WEAP software program. The analyses, assumptions, and driving recommendations shall be provided to the Engineer for review and approval to ensure the proposed driving system will not overstress the piles while satisfying the required penetration criteria.

Submittals. No later than 25 days prior to driving the production piles, the Contractor shall submit the wave equation analysis results and driving recommendations to the Engineer for review and approval.

The wave equation analysis shall be sealed by a professional engineer licensed in the state of Illinois having experience in the use of the WEAP program and selection of the geotechnical and hammer input parameters.

As a minimum, the Contractor shall submit the following analysis assumptions:

- The pile type and size analyzed.
- The minimum tip elevation specified.
- The proposed or anticipated total pile length and length above ground at end of driving.
- Ground surface elevation during driving.
- The assumed subsurface soil profile layer depths and thicknesses, location of water table, soil type and strength parameters.
- Borings numbers used to develop the design soil profile.
- Explanation of why any input values were selected that differ from the default values recommend by the program.
- A completed “Pile Driving Equipment Data” form BBS 136 documenting the proposed hammer, helmet and cushion information (see attached).
- A copy of the manufacturer specifications for the selected hammer.

The recommendations to be included in the submittal are to include:

1. An assessment of the proposed hammer driving system(s) ability to drive the production piles to their required tip elevations at a penetration rate between 1 and 10 blows per inch.
2. The expected stress levels in the piles at the maximum expected hammer energy and any recommended limitations on hammer energy or fuel settings to ensure the pile stresses do not exceed 90% of the pile yield stress.
3. Driveability charts showing hammer stroke (ft), blow count (blows/in.), compressive stress (ksi), and energy (kips-ft) versus depth (ft) for the large diameter pipe piles.
4. A bearing graph demonstrating the piles can be driven to absolute refusal atop or within rock at the required minimum energy without exceeding 90% of the pile yield stress. Absolute refusal is defined in the Large Diameter Pipe Pile special provision.
5. An electronic copy of the WEAP file(s).

A new analysis is required if the contractor makes driving system changes from what is proposed in the approved analysis.

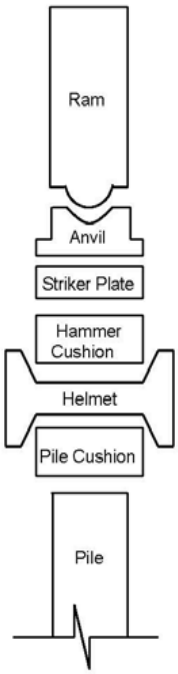
Basis of Payment. This work will not be measured for payment and shall be included in the cost for the various pay items associated with the large diameter pipe pile foundation construction.

Illinois Department of Transportation

Pile Driving Equipment Data

Structure Number: ____-_____
Pile Driving Contractor: _____
Abutment /Pier Number(s): _____ Route: _____
Pile Type & Size(s): _____ Section: _____
Nominal Required: _____ County: _____
Production Pile Length(s): _____ Closest Boring(s): _____ Contract: _____

Hammer Manufacturer: _____ Model No: _____
Type (diesel, air/steam hydraulic, etc.): _____ Ram Stroke Type (fixed of Variable): _____
Maximum Operating Energy: _____ Minimum Operating Energy: _____



Maximum Recommended Stroke: _____
Minimum Measurable Stroke: _____
Ram Weight: _____

Anvil Weight: _____
Modifications to Hammer *(if any)*: _____

Striker Plate
Diameter: _____
Thickness: _____
Weight: _____

Hammer Cushion Material 1	Hammer Cushion Material 2 (*if composite*)
Material Type: _____	Material Type: _____
Diameter: _____	Diameter: _____
Thickness per Plate: _____	Thickness per Plate: _____
No. of Plates: _____	No. of Plates: _____

Total Hammer Cushion Thickness: _____

Helmet (Drive Head, Pile Cap) Weight (*including bonnet insert if any*): _____

Pile Cushion (*precast concrete piles only*)
Material: _____
Thickness Per Sheet: _____
Area: _____
No. of Sheets: _____
Thickness Total: _____

Double Acting/Differential Acting Air or Steam
Hammers Net Weight: _____
Cylinder Net Weight: _____
Piston Area: _____

Attach Bounce Chamber Pressure vs. Equivalent Energy Graphs (Closed-End Diesel Hammers Only): _____

Hammer Data Completed by: _____ Contact Phone Number: _____
Date Completed: _____

Printed 6/6/2017 BBS 136 (10/30/08)

PILE DRIVING ANALYZER TESTING

Description: This work only applies if an impact hammer is used for pile installation. This work shall consist of high-strain dynamic testing of the first pile installed on each side of the Big Muddy River, plus two tests to be performed at the Engineer's discretion. The intention of the high-strain dynamic testing is to evaluate pile integrity, pile stresses, and energy transmission, not axial resistance.

High-strain dynamic testing will be accomplished according to ASTM D4945. A minimum of four sets of pile driving analyzer (PDA) sensors shall be attached near the top of large diameter pipe piles. Data transmission may be by cable or wireless connection to a PDA unit at the site. Signal matching analysis (by the CASE pile wave analysis program (CAPWAP)) of the dynamic pile testing data shall be performed on all the dynamically tested piles.

The Contractor shall secure the services of a dynamic testing consultant certified for PDA work. The high-strain dynamic testing shall be performed using a PDA. The consultant shall furnish all equipment necessary for the high-strain dynamic testing such as sensors, cables, or wireless transmitters, etc.

Submittals: No later than 25 days prior to driving the production piles at the pier locations, the Contractor shall submit consultant qualification documentation, testing personnel qualification documentation, and equipment documentation for review and approval by the Engineer.

1. Consultant qualification documents shall include documentation of successful completion of at least 5 PDA testing projects within the last 3 years and documentation of experience with PDA equipment and CAPWAP.
2. Testing personnel qualification documents shall be provided for the engineer who will be in charge of PDA operations and of result interpretation, either on-site or by remote connection. Testing personnel in charge of PDA operations and result interpretation shall be an engineer with a minimum of 5 years of experience and who has achieved an Advanced Level or better on the Dynamic Measurement and Analysis Proficiency Test for engineers providing high- strain dynamic foundation testing services established by Pile Dynamics, Inc. in cooperation with the Pile Driving Contractors Association (PDCA).
3. Testing equipment documentation shall confirm that the equipment conforms to the requirements of ASTM D4945 and has been calibrated within the last 2 years.

The Contractor shall submit a completed "Pile Driving Equipment Data" form BBS 136, included in the Wave Equation Analysis of Pile Driving (WEAP) special provision, to the Engineer and consultant to prepare the PDA. The Contractor shall also notify the Engineer in writing of the anticipated driving date(s) of the pile(s) to be high-strain dynamically tested. Both the completed form and written driving dates shall be provided to the Engineer a minimum of two weeks prior to driving the first high-strain dynamically tested pile.

Any changes to the proposed driving equipment will require resubmittal of the WEAP analysis, the manufacturer specifications for the selected hammer, and form BBS 136 in accordance with the WEAP special provision. Any resubmittal will be required to meet the same timeframes required for Engineer review and approval as the original submittal.

Construction: High-strain dynamic testing will be performed during impact driving. After lifting the pile to be monitored into the leads, the Contractor shall provide labor to access either side of the pile

within the top 8 feet, or as directed by the consultant, to attach the sensors. If the Engineer elects to conduct concurrent high-strain dynamic testing with state owned equipment, the Contractor shall provide labor to access either side of the pile within the top 8 feet, or as directed by the Engineer, to attach the sensors.

When the level of the sensors is within 1 foot of any obstruction endangering the survival of sensors and/or cables, driving shall be halted and the Contractor shall remove the sensors and reattach them after passing the obstruction. When sensors are within 1 foot of the ground surface, driving shall be halted and the Contractor shall remove the sensors and reattach them near the top of the next pile segment, after lifting into place and splicing.

Upon completion of the driving process of each high-strain dynamically tested pile, the Contractor shall provide the PDA operator(s) access to remove the sensors. If the sensors are located 10 feet or more above the ground at the end of driving, the Contractor shall provide equipment and labor to remove and provide the sensors to the PDA operator(s). After the sensors are removed, the Contractor may proceed with cutting the pile to length.

Preliminary Reports: Within one day, the Contractor shall submit a preliminary report for each pile tested, for the Engineer's review. The preliminary report shall summarize the high-strain dynamic testing results. Each preliminary report shall include the following:

- Maximum force applied to the pile head.
- Maximum pile head velocity.
- Maximum energy imparted to the pile.
- Assumed soil damping factor and wave speed.
- Estimated nominal resistance.
- Maximum compressive and tensile forces in the pile.
- Pile integrity.
- Blows per inch.
- Stroke.

Final Report: Within seven days upon completion of driving all large diameter pipe piles, the Contractor shall submit a final report of all piles tested, for the Engineer's review. This report shall include results of the pile capacities obtained from the high-strain dynamic testing and CAPWAP analysis. This report shall include the report criteria of ASTM D4945 and the following:

- Date of testing and date of pile installation.
- Pile identification number and location.
- All information given in the preliminary reports.
- Length of pile below ground.
- Total Length of pile, including projection above ground.
- Length of pile from instrumentation position to tip.
- Hammer type, drop, and other relevant details.
- Blow selected for signal matching analysis.
- Maximum compressive and tensile stresses, stroke, and capacity versus penetration depth.
- Temporary compression.
- Pile integrity and location of damage, if any.
- Force/velocity versus time trace. (m)Force/velocity match curve.

- Resistance distribution along the pile and at the pile tip.
- Detailed graphical and tabular results from blow analyzed using signal matching techniques and software.
- Estimated nominal resistance.
- Electronic copies of the original PDA data collection files, final PDA-W or PDA- S refined files, and final CAPWAP files.

Basis of Payment: This work will not be measured for payment and shall be included in the cost for the various pay items associated with pile foundation construction.

PIPE PILE MONITORING EQUIPMENT

Description. This work shall consist of procuring equipment to monitor performance of select pipe piles and installing housing for the equipment within the pipe piles. The monitoring equipment includes ShapeArray devices, a ShapeArray field power unit, ShapeArray data logging equipment, housing for the ShapeArrays, and cabling. Contractor shall procure the ShapeArray devices and associated data logging equipment, procure and install ShapeArray housing, install ShapeArray cable through a pipe and bury the pipe in a shallow trench, and mount dataloggers on the existing bridge structure. ShapeArray devices will be installed within the housing and monitored by IDOT. Monitoring equipment that can provide equivalent or better measurements compared to the ShapeArray system referenced in this special provision will be considered with approval by the Engineer.

Submittals. No later than forty-five (45) days prior to driving the production piles, the Contractor shall submit an inventory of monitoring equipment to be purchased to the Engineer for review and approval. The inventory list shall originate from the equipment manufacturer(s). The monitoring equipment inventory shall be approved prior to completing the purchase. All equipment required in this special provision shall be made available to the Engineer prior to installation of the first monitoring pile.

ShapeArray Devices. One ShapeArray device shall be procured for each monitoring pile. ShapeArrays shall consist of a chain of rigid segments used to measure deformation profiles along the length of the pipe piles. ShapeArrays shall be intended for vertical installation in a 27-mm conduit, shall have a joint diameter of 19 mm and a segment length of 2 ft. The sensorized length of each ShapeArray shall be as shown in the plans for the corresponding monitoring pile. Each ShapeArray shall have 200 ft of cable.

ShapeArray Field Power Unit. One field power unit shall be procured to facilitate ShapeArray installations. The single unit will be used for all ShapeArrays.

ShapeArray Datalogging Equipment. One datalogger shall be procured for each ShapeArray. The datalogger shall be capable of reading and recording data from the ShapeArray every hour. The datalogger shall be battery powered. The datalogger shall be capable of transmitting data to a computer via USB. An example of approved dataloggers is the DTSAA device.

ShapeArray Housing. ShapeArray housing consists of conduit, angle iron, and grout. One housing shall be installed in select pipe piles as indicated on the plans. If a pile installation system other than impact or vibratory driving is used, the Contractor shall propose alternative

monitoring pile details to be approved by the Engineer.

(a) Materials. Conduit shall be 1-inch diameter, Schedule 40 steel pipe. Angle iron shall be steel with a minimum yield stress of 50 ksi and shall have equal legs of 4 inches and 0.5-inch thickness. Grout shall be neat cement and non-shrink.

(b) Prior to installation, ensure that ShapeArrays will fit within the procured conduits and the procured conduits, including any joint couplers, fit within the attached angle iron.

(c) Installation. Prior to driving piles selected for monitoring as indicated in the project plans, angle iron shall be welded to the exterior of the pipe pile. Full-length welds shall be used to fasten each leg of the angle iron to the pile. The angle iron shall be aligned plumb with the longitudinal axis of the pile.

(d) If the monitoring pile will consist of multiple segments, weld angles to all segments prior to the start of driving for the first segment. During pile splicing, align the pile segments so that angles on the top and bottom pile segment are aligned. Weld the full length of the joint between the top and bottom angles.

Immediately after completing installation of the monitoring pile, inspect the space between the pipe pile and the angle iron to confirm the full length from top of pile to just above the tip of pile is free of debris. If the space is not free of debris, or if the conduit cannot pass the full length from the top of the pile to just above the tip of pile, the installation is considered unsuccessful and housing shall be installed on the adjacent pile specified in the plans.

Prior to performing the grouting, the monitoring pile shall be backfilled and cut below grade as shown in the Plans.

Prepare the conduit for installation into the space between the pipe pile and the angle iron. The length of the conduit shall be established such that the conduit extends from the bottom of the angle iron to 6 inches above the top of the pile. Conduit segments shall be coupled together to prevent the ingress of grout. The top and bottom of the conduit shall be capped, with the bottom cap welded to the conduit and the top cap loose.

Mix grout according to manufacturer recommendations. Install grout within the space between the pipe pile and the angle iron. The volume of grout installed shall be equal to the total volume of the space, less the volume of the conduit. If the space to be grouted is not dry, grout shall be placed from the bottom up using a tremie pipe.

Insert the conduit within the angle iron after grouting. Top off grout to the top of the pile as necessary. Ensure no grout enters the conduit.

Cable Trenching and Datalogger Installation. After installation of the ShapeArray housing, the ShapeArray device shall be installed by IDOT and/or the Engineer. For each monitoring pile, the Contractor shall install the ShapeArray cable in a pipe and bury the pipe in a trench from the top of pile to the roadway at the nearest bridge abutment. The minimum cover depth above the pipe shall be 6 inches. Contractor shall mount the datalogger on the bridge at a location to be

identified in coordination with the Engineer or IDOT. Dataloggers shall be mounted using concrete anchor bolts.

Method of Measurement. This work will be measured for payment as each, where each is defined as the collection of ShapeArray device, datalogging equipment, housing materials, cable pipe and trenching, and successful housing installation for one monitoring pile.

Basis of Payment. This work shall be paid for at the contract unit price EACH for PIPE PILE MONITORING EQUIPMENT. Payment will only be made for monitoring equipment that is successfully installed.

FENCE REMOVAL

Description. This work shall consist of the removal and satisfactory disposal of the existing bridge fence railing on the north edge of SN 039-0076 according to Section 501 except as modified herein.

General. The work shall include the removal of the chain link fabric, posts, rails, base plates, elastomeric pads, and other fence components. Existing anchorage cast in the deck shall remain in place and protected from damage. See plans for approximate limits of existing bridge fence railing.

Method of Measurement. This work will be measured for payment in place in linear feet.
The measurement will be the overall length along the top longitudinal railing member through all posts and gaps.

Basis of Payment. This work will be paid for at the contract unit price per FOOT for FENCE REMOVAL.

RELOCATE EXISTING FLARED END SECTION

This work shall consist of the removal and relocation of existing end sections of various types and sizes at the locations shown on the plans according to Section 542 of the “Standard Specifications for Road and Bridge Construction”. Any damage to the end sections due to the Contractor’s operations shall be repaired by the Contractor at his/her expense.

This work will be paid for at the contract unit price per EACH for RELOCATE EXISTING FLARED END SECTION, regardless of type and size, including end blocks.

STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL)

This work shall consist of erecting a new guardrail element curved to a radius as shown in the plans and installed on existing posts relocated to align with the crossover. This work shall be in accordance with Section 630 of the Standard Specifications for Road and Bridge Construction.

The relocation of the existing posts to be paid for separately as part of Remove and Re-erect Steel Plate Beam Guardrail, Type A.

This work will be paid for at the contract unit price per FOOT for STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL).

REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)

This work consists of removing and replacing all damaged components from the extruder head to 25’ from the end of the extruder head at the locations specified by the Engineer in accordance with the Standard Specifications, the plans, and this provision.

The Contractor shall adjust and realign existing rail element plates and posts adjacent to or within the traffic barrier terminal repaired as directed by the Engineer. Unbolting, bolting, adjusting, realigning, excavating, filling post holes, or any other work necessary to accomplish the desired realignment shall be included in the contract unit bid price for the pay items involved.

This item shall also include furnishing and installing of a terminal marker-direct applied, if needed, which shall comply with the applicable portions of Section 725 of the Standard Specifications. This work shall be paid for separately.

The entire 25 feet of guardrail shall be replaced when the existing guardrail is damaged. Replacement of the 25 feet of steel plate beam guardrail shall not be included in the measurement of payment but shall be considered included in the cost of the item. Also included in the cost of this item are cable assemblies, strut, soil tubes, and all other hardware excluding the extruder head.

The existing extruder head will be reused and reattached to the traffic barrier terminal if undamaged. This work is considered included in the cost of this pay item. When the extruder head is damaged, a new extruder head will be paid for separately.

If more than 25’ of terminal is damaged, the entire terminal should be replaced and paid for as a complete new installation. The Engineer will determine whether the unit is to be repaired or replaced.

This work will be paid for at the contract unit price per EACH for REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT), which price shall include all labor, equipment, and material necessary to satisfactorily complete the work as described herein.

REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT

This work shall consist of removing, storing, transportation and re-erecting the traffic barrier terminal, type 1 special tangent at the locations specified in the plans or as directed by the Engineer. The work shall be in accordance with Section 633 of the Standard Specifications for Road and Bridge Construction. The Contractor shall be responsible for replacing any component of the terminal that is damaged during the removal or reinstallation.

This work will be paid for at the contract unit price per EACH for REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT.

TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

This work shall consist of furnishing, erecting, maintaining, relocating, and removing all traffic control items as shown in the traffic control plans and in the traffic control standards listed in the plans. Items shall include temporary signs; drums; barricades; and all other equipment, hardware, and labor necessary to maintain the lane shifts and/or closures.

This work shall include any special signs as shown on the Traffic Control Plan. The Contractor will be required to install, maintain, and remove traffic control items as shown on the Traffic Control Plan or as directed by the Engineer to manage the staged construction.

All related traffic control to construct the westbound median crossovers at the start of the project, shifting traffic to the westbound bridge and to the eastbound bridge, and removing traffic control items to restore traffic back to its original configuration shall be paid for separately.

Traffic control and protection will be paid for at the contract unit price per LUMP SUM for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

FURNISHING AND PLACING SAND FILL

Description. This work shall consist of furnishing and installing sand fill to fill all large diameter pipe pile after installation as directed by the Engineer. The sand fill layer shall be graded smooth but not compacted.

Materials. Materials shall be according to Article 1003.04 with paragraph 1003.04(a) modified as follows:

(a) Description. The fine aggregate shall consist of Sand, Silica Sand and Stone Sand as described in paragraphs 1003.01(a)(1)(2)(3). Sand from any other source or process shall not be used.

Method of Measurement. This work will be measured for payment in place and the volume computed in cubic yards.

Basis of Payment. The work will be paid for at the contract unit price per CUBIC YARD for FURNISHING AND PLACING SAND FILL, which payment shall include full compensation for furnishing and installing the sand fill and for furnishing all labor, equipment and tools necessary to complete the work specified.

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.

Contract Specific Work Areas. 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 4708-04 – Big Muddy River, 100 block of Walnut Street, Murphysboro, Jackson County

- All excavation related to removal of cover soil around buried concrete to be removed. 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).

JUNCTION BOX REPLACEMENT

Description. This work shall consist of replacing the damaged stainless steel junction box on the southwest parapet of SN 039-0075, two stainless steel conduits attached to the parapet, and associated hardware.

Material. Stainless steel junction box, conduit, couplings, and elbows shall be according to Section 811 of the Standard Specifications, and requirements shown in the existing Lighting Plans included in the 2012 plans. If any standards referenced in the plans are obsolete, the most recent standards shall be followed when applicable.

The cables in the existing junction box shall be disconnected and the box and existing stainless steel conduits removed. The new box and steel conduits shall be installed and the cables reconnected. The existing buried ducts carrying the cables shall be extended as needed and reattached to the new stainless steel conduits. Additional details can be found in the existing Lighting Plans included in the 2012 plans.

Basis of Payment. This work will be paid for at the contract unit price per EACH for JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12”X10”X6” and shall include the box and all stainless steel and liquid tight flexible non-metallic conduit, including all fittings, bushings, couplings, and elbows.

ROCK FILL

Description. This work shall consist of furnishing and placing granular backfill in holes where unsuitable material was found as part of the Concrete Debris Removal special provision.

Materials. Material shall be coarse aggregate, gradation CA 11 as specified in Article 1004.01.

Mechanical compaction of granular backfill will not be required.

Granular backfill shall not be stockpiled in the slope failure areas. Tandem rock delivery trucks shall remain outside of the slope failure areas, rock placement to be completed by use of skid steer, pump or conveyor. Granular backfill shall not be brought to the hole until the excavated unsuitable material has been removed from the slope failure area. However, the granular backfill shall be placed in the holes as soon as practical after the unsuitable material has been removed from the slope failure area.

Method of Measurement. Granular backfill shall not be measured in the field but shall be the volume of the pay limits of 7’ x 7’ square hole that is 5’ deep in cubic yards. If the Engineer determines that excavation is required outside of the pay limits, the additional granular backfill shall be measured for payment in cubic yards.

Basis of Payment. This work will be paid for at the contract unit price per CUBIC YARD for ROCK FILL.

CONCRETE DEBRIS REMOVAL

Description. This work shall consist of excavating a 7' x 7' square hole that is 5' deep and centered on the proposed pipe pile before pipe pile installation begins to remove any concrete debris that was previously buried on-site.

If no concrete debris is encountered as determined by the Engineer, the hole shall be immediately backfilled with the excavated material. The material shall be placed in layers and each layer shall be tamped with the excavator bucket as directed by the Engineer. If concrete debris is encountered, the excavated material shall be immediately removed from the site and disposed of in accordance with Article 502.11.

Material shall not be stockpiled in the slope failure areas. The hole shall be backfilled with coarse aggregate in accordance with the Rock Fill special provision as soon as practical after the unsuitable material has been removed from the slope failure area. If a larger excavation is required, either due to Contractor means and methods or as directed by the Engineer, the length of open excavation shall not exceed 20' at any time.

Method of Measurement. Excavation, removal, disposal, and backfill shall not be measured in the field but shall be the volume of the material in its original position within the pay limits of a of 7' x 7' square hole that is 5' deep in cubic yards. If the Engineer determines that excavation is required outside of the pay limits, this work shall be measured for payment in its original position and the volume computed in cubic yards.

Basis of Payment. Excavation and disposal of unsuitable material will be paid for at the contract unit price per CUBIC YARD for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES.

Granular backfill, when required, will be paid for in accordance with the ROCK FILL special provision. Replacing suitable material back in the hole, when allowed, will not be paid for separately but included in the cost of the original excavation.

DECORATIVE STEEL RAILING

Description. This special provision covers work related to fabrication, surface coatings on designated surfaces, and installation of decorative steel railing. Work shall be in accordance with the construction documents and Sections 505, 506 and 509 of the Standard Specifications for Road and Bridge Construction.

Materials. Railing posts, decorative railing panels, cross railing, splices, anchor devices, bent plates, and accessories shall be painted following the appropriate paint system requirements indicated for structural steel Section 506.

The coating system for structural steel and metal surfaces shall be an IDOT prequalified manufacturer such as Carboline or Tnemec.

Decorative panel inserts shall consist of laser or water jet cut perforated metal panels. Support

sizes, structural connections and locations shall be coordinated with the railing components.

General. Shop drawings, including plan elevations, sections and details indicating materials, components sizes, dimensions, tolerances, hardware, fasteners, finishes, options, accessories and installation methods, with details of attaching metal panels to supports shall be provided.

Fabrication shall be coordinated such that the decorative panels shall conform to guaranteed openings in the railing frame. The manufacturer of laser or water jet cut decorative panels shall have completed projects of similar scope for more than five years and shall meet all the specification requirements. The decorative panel manufacturer must be capable of producing the design intent of the panels while meeting structural and local code requirements. Incompatible materials shall be separated to prevent galvanic corrosion. Decorative panel thickness shall be sufficient to meet structural loading requirements but not be less than ¼" thick. The manufacturer shall use the conceptual image for the panels shown in the drawings to produce a design for approval by the Engineer as part of the shop drawing submittal process.

Color for all bridge fence railing components shall be black. Before beginning fabrication, the Contractor shall submit samples to the Engineer according to Sections 505, 506 and 509 at least 30 days prior to beginning shop coating and painting of the railing posts, railing, splices, anchor devices, bent plates and accessories. The contractor shall submit for the Engineer's review and acceptance of up to two mockup panels for approval demonstrating the color for the Decorative Steel Railing. The mockup panel shall consist of a minimum of two posts, rail panel, anchor devices, bent plates, and accessories. During manufacturing, transport, and erection, Decorative Steel Railing shall be protected from scratching, denting or other defects that may affect durability or appearance.

Method of Measurement. This work will be measured for payment in place in linear feet. The measurement will be the overall length along the top longitudinal railing member through all posts and gaps.

Basis of Payment. This work will be paid for at the contract unit price per FOOT for DECORATIVE STEEL RAILING. The cost for painting and adding the ornamental reveal shall be considered incidental to the cost of Decorative Steel Railing.

“Ducks Panel”

“Fish Panel”

“Bigfoot panel” custom fabrication to be determined, but see concepts below:

or

STRUCTURAL ASSESSMENT REPORTS FOR CONTRACTOR'S MEANS AND METHODS

Effective: March 6, 2009 Revised October 5, 2015

Description. This item shall consist of preparing and submitting, to the Engineer for approval, Structural Assessment Reports (SARs) for proposed work on structure(s) or portions thereof. Unless noted otherwise, a SAR shall be required when the Contractor's means and methods apply loads to the structure or change its structural behavior. A SAR shall be submitted and approved prior to beginning the work covered by that SAR. Separate portions of the work may be covered by separate SARs which may be submitted at different times or as dictated by the Contractor's schedule.

Existing Conditions. An Existing Structure Information Package (ESIP) will be provided by the Department to the Contractor upon request. This package will typically include existing or "As-Built" plans, and the latest National Bridge Inspection Standards (NBIS) inspection report. The availability of structural information from the Department is solely for the convenience and information of the Contractor and shall not relieve the Contractor of the duty to make, and the risk of making, examinations and investigations as required to assess conditions affecting the work. Any data furnished in the ESIP is for information only and does not constitute a part of the Contract. The Department makes no representation or warranty, express or implied, as to the information conveyed or as to any interpretations made from the data.

Removal SARs. A SAR for removal of existing structures, or portions thereof, shall demonstrate that the Contractor's proposed means and methods to accomplish the work do not compromise the structural adequacy of the bridge, or portions thereof that are to remain in service, at any time during the work activities being performed. Each phase of the operation shall be accounted for, as well as the existing condition of the structure.

Construction SARs. A SAR for new construction or for construction utilizing existing components shall demonstrate that the Contractor's proposed means and methods to accomplish the work do not compromise the structural adequacy of the bridge or portions thereof at any time during the work activities being performed. For construction activities applying less than 10 tons (9 metric tons) of total combined weight of equipment and stockpiled materials on the structure at any one time, a SAR submittal shall not be required provided the Contractor submits written verification to the Engineer stating the applied loads do not exceed this threshold. The verification shall be submitted prior to the start of the activity. This SAR exemption shall not relieve the Contractor from responsibility for the structure. A SAR shall be submitted in all cases where the existing structure is posted for less than legal loads or the Contract plans indicate a live load restriction is in place.

Requirements

a) General. All work specified shall be performed according to the Contract plans, Special Provisions and/or Standard Specifications governing that work.

   Submittals for falsework and forming for concrete construction shall be according to Articles 503.05 and 503.06 and does not require a SAR. Moving construction equipment across a structure, or portions thereof, open to traffic shall be addressed according to Article 107.16 and does not require a SAR. Operating equipment on an in-service structure and/or using a portion of an in-service structure as a work platform shall require a SAR and Article 107.16 shall not

apply.

The Contractor may move vehicles across the existing bridge without a SAR after closure and prior to removal of any portion of the structure provided:

- The vehicles satisfy the requirements of Section 15-111 of the Illinois Vehicle Code (described in the IDOT document "Understanding the Illinois Size & Weight Laws") or of the Federal Highway Administration document "Bridge Formula Weights" (available at: http://www.ops.fhwa.dot.gov/freight/publications/brdg_frm_wghts/index.htm)
- The Contractor submits written verification to the Engineer stating the vehicles meet these requirements. The verification shall be submitted prior to allowing the vehicles on the structure.

This SAR exemption shall not relieve the Contractor from responsibility for the structure. This SAR exemption shall not be allowed where the existing structure is posted for less than legal loads or the Contract plans indicate a live load restriction is in place. No stockpiling of material is allowed under this exemption.

All SARs shall detail the procedures and sequencing necessary to complete the work in a safe and controlled manner. When appropriate, supporting design calculations shall be provided verifying the following:

- The effects of the applied loads do not exceed the capacity at Operating level for any portions of the structure being utilized in the demolition of the structure provided those portions are not to be reused.
- The effects of the applied loads do not exceed the capacity at Inventory level for new construction or for portions of the existing structure that are to be reused.
- The condition of the structure and/or members has been considered.

See AASHTO Manual for Bridge Evaluation for further information on determining the available capacities at the Operating and Inventory levels.

b) Confidential Documents. Due to the sensitivity of the inspection reports and bridge condition reports to bridge security, the following confidentiality statement applies to these reports:

"Reports used by the Contractor and the contents thereof are the property of the Department, and are subject to the control of the Department in accordance with State and Federal law. The distribution, dissemination, disclosure, duplication or release of these reports or the content thereof in any manner, form or format without the express permission of the keeper of this record is prohibited. The owner is the official keeper of these records, except for state owned bridges, where the official keeper of these records is the Regional Engineer."

c) Submittals. The Contractor shall be pre-approved to prepare SAR(s) or shall retain the services of a pre-qualified engineering firm to provide these services. Pre-approval of the Contractor will be determined by the Illinois Department of Transportation and will allow SAR(s) preparation by the Contractor unless otherwise noted on the plans. For engineering firms, pre-qualification shall be according to the Department in the category of "Highway Bridges-Typical" unless otherwise noted on the plans. Firms involved in any part of the project (plan development or project management) will not be eligible to provide these services. Evidence of pre-approval/pre-qualification shall be submitted with all SAR(s). The SAR(s) shall be

prepared and sealed by an Illinois Licensed Structural Engineer. The Contractor shall submit SAR(s), complete with working drawings and supporting design calculations, to the Engineer for approval, at least 30 calendar days prior to start of that portion of the work.

At a minimum a Structural Assessment Report shall include the following:

1. A plan outlining the procedures and sequence for the work, including staging when applicable.
2. A demolition plan (when removal is included as an item of work in the contract) including details of the proposed methods of removal.
3. A beam erection plan (when beam erection is included as an item of work in the contract) including details of the proposed methods of erection.
4. Pertinent specifications for equipment used during the work activity.
5. The allowable positions for that equipment during the work activity.
6. The allowable positions and magnitudes of stockpiled materials and/or spoils, if planned to be located on the structure.
7. Design and details for temporary shoring and/or bracing, if required by the Contractor's means and methods.

Approval or acceptance of a Structural Assessment Report shall not relieve the Contractor of any responsibility for the successful completion of the work.

Revisions to the Contractor's means and methods resulting in no increased load effects to the structure, as determined by the Contractor's Structural Engineer, shall not require a SAR resubmittal. However, the Contractor's Structural Engineer shall submit to the Engineer written verification that there is no increased load effect. The written verification shall specify the revisions and shall be submitted prior to the start of the revised activities.

The Contractor shall be responsible for following the approved SAR related to the work involved.

Method of Measurement. Structural Assessment Reports will not be measured for payment.

Basis of payment. Structural Assessment Reports will not be paid for separately but shall be considered as included in the contract unit price(s) for the work item(s) specified.

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

Effective: January 1, 2025

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

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

Revise Article 302.02 of the Standard Specifications to read:

"**302.02 Materials.** Materials shall be according to the following.

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

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

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

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

"(c) Cement ..... 1001"

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)	1001
(b) Soil for Soil-Cement Base Course	1009.03
(c) Water	1002
(d) Bituminous Materials (Note 2)	1032

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

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

Revise Article 404.02 of the Standard Specifications to read:

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

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

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

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

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

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

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

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

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

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

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

Revise Article 583.01 of the Standard Specifications to read:

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

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

"(a) Cement .....1001"

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

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

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

"2/ Applies only to sand. Sand exceeding the colorimetric test standard of 11 (Illinois Modified AASHTO T 21) will be checked for mortar making properties according to 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 ($Na_2O + 0.658K_2O$) 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 ($Na_2O + 0.658K_2O$) 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 ($Na_2O + 0.658K_2O$) of 0.90 percent or greater."

Revise Article 1017.01 of the Standard Specifications to read:

"**1017.01 Requirements.** The mortar shall be high-strength according to ASTM C 387 and shall have a minimum 80.0 percent relative dynamic modulus of elasticity when tested by the Department according to Illinois Modified AASHTO T 161 or AASHTO T 161 when tested by an independent lab. The high-strength mortar shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the high-strength mortar shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the high-strength mortar shall be according to the manufacturer's specifications. The Department will maintain a qualified product list."

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

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

Revise Article 1019.02 of the Standard Specifications to read:

"**1019.02 Materials.** Materials shall be according to the following.

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

Note 1. The air-entraining admixture may be in powder or liquid form. Prior to approval, a CLSM air-entraining admixture will be evaluated by the Department. The admixture 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 ºF, the Type III portland cement may be replaced with Type I, IL, or II portland cement.”

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

“(8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 ºC, 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 AASHTO M 194.

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

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

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

Revise Article 1021.03 of the Standard Specifications to read:

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

(a) Retarding admixtures shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).

(b) Water-reducing admixtures shall be according to AASHTO M 194, Type A.

(c) High range water-reducing admixtures shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding)."

Revise Article 1021.05 of the Standard Specifications to read:

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

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

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

Revise Article 1021.06 of the Standard Specifications to read:

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

Revise Article 1021.07 of the Standard Specifications to read:

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

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

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

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

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

Add Article 1021.08 of the Standard Specifications as follows:

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

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

Revise Article 1024.01 of the Standard Specifications to read:

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

Materials for the grout shall be according to the following.

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

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

"Note 1. Nonshrink grout shall be according to Illinois Modified ASTM C 1107.

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

Revise Article 1029.02 of the Standard Specifications to read:

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

Item	Article/Section
(a) Cement	1001
(b) Fly Ash	1010
(c) Ground Granulated Blast Furnace (GGBF) Slag	1010
(d) Water	1002

(e) Fine Aggregate.....1003
(f) Concrete Admixtures.....1021
(g) Foaming Agent (Note 1)

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

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

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

Revise the first two sections of Check Sheet #11 of the Supplemental Specifications and Recurring Special Provisions to read:

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

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

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

Revise the third paragraph of Materials Note 2 of Check Sheet #28 of the Supplemental Specifications and Recurring Special Provisions to read:

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

COMPENSABLE DELAY COSTS (BDE)

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

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

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

(1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.

(2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.

(3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

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

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

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

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

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

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

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

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

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

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

(1) When adverse weather prevents work on the controlling item.

(2) When job conditions due to recent weather prevent work on the controlling item.

(3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.

(4) When delays caused by utility or railroad adjustments prevent work on the controlling item.

(5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.

(6) When any condition over which the Contractor has no control prevents work on the controlling item."

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

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

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

Add the following to Section 109 of the Standard Specifications.

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

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or	No working days have been charged for two

	Article 108.04(b)(4)	consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

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

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

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

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

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

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

Upon payment for a contract delay under this provision, the Contractor shall assign

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

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

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

1. OVERVIEW AND GENERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory. Award of the contract is conditioned on meeting the requirements of 49 CFR Part 26, and failure by the Contractor to carry out the requirements of Part 26 is a material breach of the contract and may result in the termination of the contract or such other remedies as the Department deems appropriate.

2. CONTRACTOR ASSURANCE. All assurances set forth in FHWA 1273 are hereby incorporated by reference and will be physically attached to the final contract and all subcontracts.

3. CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. The Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies and that, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform **2.00 %** of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work in accordance with the requirements of 49 CFR 26.53 and SBE Memorandum No. 24-02.

4. IDENTIFICATION OF CERTIFIED DBE. Information about certified DBE Contractors can be found in the Illinois UCP Directory. Bidders can obtain additional information and assistance with identifying DBE-certified companies at the Department's website or by contacting the Department's Bureau of Small Business Enterprises at (217) 785-4611.

5. BIDDING PROCEDURES. Compliance with this Special Provision and SBE Policy Memorandum 24-02 is a material bidding requirement. The following shall be included with the bid.

   (a) DBE Utilization Plan (form SBE 2026) documenting enough DBE participation has been obtained to meet the goal, or a good faith effort has been made to meet the goal even though the efforts did not succeed in obtaining enough DBE participation to meet the goal.

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

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

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

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

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

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

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

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

FUEL COST ADJUSTMENT (BDE)

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

Description. 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.

General. 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.

English Units

Category	Factor	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 Units

Category	Factor	Units
A - Earthwork	1.68	liters / cu m
B – Subbase and Aggregate Base courses	2.58	liters / metric ton
C – HMA Bases, Pavements and Shoulders	4.37	liters / metric ton
D – PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E – Structures	30.28	liters / $1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	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, $
FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, $/gal ($/liter)
FPI_L = 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.

Basis of Payment. 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 = $\{(FPI_L - FPI_P) \div FPI_L\} \times 100$

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.

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."

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2024 Revised: April 1, 2024

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

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

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

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

Class – Type		Seeds	lb/acre (kg/hectare)
4	Native Grass 2/ 6/	*Andropogon gerardi* (Big Blue Stem) 5/	4 (4)
		Schizachyrium scoparium (Little Blue Stem) 5/	5 (5)
		Bouteloua curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus canadensis (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	25 (25)
		Perennial Ryegrass	15 (15)
4A	Low Profile Native Grass 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Bouteloua curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	1 (1)
		Sporobolus heterolepis (Prairie Dropseed) 5/	0.5 (0.5)
		Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
4B	Wetland Grass and Sedge Mixture 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Wetland Grasses (species below) 5/	6 (6)

Species:	% By Weight
Calamagrostis canadensis (Blue Joint Grass)	12
Carex lacustris (Lake-Bank Sedge)	6
Carex slipata (Awl-Fruited Sedge)	6
Carex stricta (Tussock Sedge)	6
Carex vulpinoidea (Fox Sedge)	6
Eleocharis acicularis (Needle Spike Rush)	3
Eleocharis obtusa (Blunt Spike Rush)	3
Glyceria striata (Fowl Manna Grass)	14
Juncus effusus (Common Rush)	6
Juncus tenuis (Slender Rush)	6
Juncus torreyi (Torrey's Rush)	6
Leersia oryzoides (Rice Cut Grass)	10
Scirpus acutus (Hard-Stemmed Bulrush)	3
Scirpus atrovirens (Dark Green Rush)	3
Bolboschoenus fluviatilis (River Bulrush)	3
Schoenoplectus tabernaemontani (Softstem Bulrush)	3
Spartina pectinata (Cord Grass)	4

Class – Type	Seeds	lb/acre (kg/hectare)
5 Forb with Annuals Mixture 2/ 5/ 6/	Annuals Mixture (Below) Forb Mixture (Below)	1 (1) 10 (10)

Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following:

Coreopsis lanceolata (Sand Coreopsis)
Leucanthemum maximum (Shasta Daisy)
Gaillardia pulchella (Blanket Flower)
Ratibida columnifera (Prairie Coneflower)
Rudbeckia hirta (Black-Eyed Susan)

Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following:

Amorpha canescens (Lead Plant) 4/
Anemone cylindrica (Thimble Weed)
Asclepias tuberosa (Butterfly Weed)
Aster azureus (Sky Blue Aster)
Symphyotrichum leave (Smooth Aster)
Aster novae-angliae (New England Aster)
Baptisia leucantha (White Wild Indigo) 4/
Coreopsis palmata (Prairie Coreopsis)
Echinacea pallida (Pale Purple Coneflower)
Eryngium yuccifolium (Rattlesnake Master)
Helianthus mollis (Downy Sunflower)
Heliopsis helianthoides (Ox-Eye)
Liatris aspera (Rough Blazing Star)
Liatris pycnostachya (Prairie Blazing Star)
Monarda fistulosa (Prairie Bergamot)
Parthenium integrifolium (Wild Quinine)
Dalea candida (White Prairie Clover) 4/
Dalea purpurea (Purple Prairie Clover) 4/
Physostegia virginiana (False Dragonhead)
Potentilla arguta (Prairie Cinquefoil)
Ratibida pinnata (Yellow Coneflower)
Rudbeckia subtomentosa (Fragrant Coneflower)
Silphium laciniatum (Compass Plant)
Silphium terebinthinaceum (Prairie Dock)
Oligoneuron rigidum (Rigid Goldenrod)
Tradescantia ohiensis (Spiderwort)
Veronicastrum virginicum (Culver's Root)

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

Notes:

1/ Seeding shall be performed when the ambient temperature has been between 45 ºF (7 ºC) and 80 ºF (27 ºC) 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 ºF (7 ºC) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 ºF (27 ºC) 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_3 to break dormancy and dyed to indicate such.

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

SHORT TERM AND TEMPORARY PAVEMENT MARKINGS (BDE)

Effective: April 1, 2024 Revised: April 2, 2024

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

"(d) Pavement Marking Tapes (Note 3) .....1095.06"

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

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

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

"(c) Pavement Marking Tapes (Note 1) .....1095.06"

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

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

Revise Article 1095.06 of the Standard Specifications to read:

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

the tape.

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

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

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

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

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

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456

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

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

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

Wet Retroreflectance, Initial R_L	
Color	R_L 1.05/88.76
White	300

Yellow	200

(c) Skid Resistance. The surface of Type IV and blackout markings shall provide a minimum skid resistance of 45 BPN when tested according to ASTM E 303.

(d) Application. The pavement marking tape shall have a precoated pressure sensitive adhesive and shall require no activation procedures. Test pieces of the tape shall be applied according to the manufacturer's instructions and tested according to ASTM D 1000, Method A, except that a stiff, short bristle roller brush and heavy hand pressure will be substituted for the weighted rubber roller in applying the test pieces to the metal test panel. Material tested as directed above shall show a minimum adhesion value of 750 g/in. (30 g/mm) width at the temperatures specified in ASTM D 1000. The adhesive shall be resistant to oils, acids, solvents, and water, and shall not leave objectionable stains or residue after removal. The material shall be flexible and conformable to the texture of the pavement.

(e) Durability. Type IV and blackout tape shall be capable of performing for the duration of a normal construction season and shall then be capable of being removed intact or in large sections at pavement temperatures above 40 °F (4 °C) either manually or with a roll-up device without the use of sandblasting, solvents, or grinding. The Contractor shall provide a manufacturer’s certification that the material meets the requirements for being removed after the following minimum traffic exposure based on transverse test decks with rolling traffic.

(1) Time in place - 400 days
(2) ADT per lane - 9,000 (28 percent trucks)
(3) Axle hits - 10,000,000 minimum

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

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

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

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

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

(f) Sampling and Inspection.

(1) Sample. Prior to approval and use of Type IV pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The independent laboratory test report shall state the lot tested, the manufacturer's name, and the date of manufacture.

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

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

SOURCE OF SUPPLY AND QUALITY REQUIREMENTS (BDE)

Effective: January 2, 2023

Add the following to Article 106.01 of the Standard Specifications:

"The final manufacturing process for construction materials and the immediately preceding manufacturing stage for construction materials shall occur within the United States. Construction materials shall include an article, material, or supply that is or consists primarily of the following.

(a) Non-ferrous metals;

(b) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);

(c) Glass (including optic glass);

(d) Lumber;

(e) Drywall.

Items consisting of two or more of the listed construction materials that have been combined through a manufacturing process, and items including at least one of the listed materials combined with a material that is not listed through a manufacturing process shall be exempt."

STEEL COST ADJUSTMENT (BDE)

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

Description. 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.

Types of Steel Products. 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.

Documentation. 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:

$SCA = Q \times D$

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_L = 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.

Basis of Payment. 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 = $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$

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)

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

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

"STATEMENTS AND PAYROLLS

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

The Contractor and each subcontractor shall submit certified payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers, last known addresses, telephone numbers, and email addresses shall not be included on weekly submittals. Instead, the payrolls need only include an identification number for each employee (e.g., the last four digits of the employee's social security number). The submittals shall be made using LCPtracker Pro software. The software is web-based and can be accessed at https://lcptracker.com/. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option ("No Work", "Suspended", or "Complete") selected."

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

"3. Submission of Payroll Records. The Contractor and each subcontractor shall, no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month to the Illinois Department of Labor (IDOL) through the Illinois Prevailing Wage Portal in compliance with the State Prevailing Wage Act (820 ILCS 130). The portal can be found on the IDOL website at https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx. Payrolls shall be submitted in the format prescribed by the IDOL.

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

SURVEYING SERVICES (BDE)

Effective: April 1, 2025

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

Delete Section 668 of the Standard Specifications.

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021 Revised: November 1, 2022

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

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

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.

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020 Revised: January 1, 2025

Add the following to Article 701.03 of the Standard Specifications:

"(q) Temporary Sign Supports .....1106.02"

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

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

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

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

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

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

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

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

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

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

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

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

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

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

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

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

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

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within **115** working days.

SOIL BORINGS

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 2/21/24

ROUTE IL-13 DESCRIPTION Southwestern Abutment, EB Structure LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075
Notes Located at base of slope

BORING NO. B-241
Station N/A
Offset 0.0ft
Ground Surface Elev. 352.621 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
	9			FILL: Medium dense, grey, CRUSHED LIMESTONE, with clay
	7 8		9	
349.87				
				Very soft to soft, grey, CLAY
		1.5	17	- Atterberg limits: LL = 38, PI = 19
-5				- dry unit weight (pcf) = 110.2 at 4.0 ft.
				- trace sand above 5.0 ft.
	1			
	1 3	1.0	28	
		1.0	30	
-10				- dry unit weight (pcf) = 95.3 at 8.0 ft.
	1			
	1 1	0.5	30	
339.87				
				Soft to medium stiff, grey mottled with black, SILT LOAM, trace fine wood fragments
		0.5	36	- Atterberg limits: LL = 38, PI = 17
-15				- Hydrometer: 23.7% clay, 62.1% silt, 14.2% sand
	0			
	1 2	0.5	31	
		0.75	32	- Atterberg limits: LL = 34, PI = 14
-20				

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
	1			Soft to medium stiff, grey mottled with black, SILT LOAM, trace fine wood fragments *(continued)*
	2 1	1.0	28	
				- Atterberg limits: LL = 37, PI = 17
		0.5	32	
-25				- dry unit weight (pcf) = 96.6 at 23.0 ft.
327.12				
	0			Medium stiff, grey and black, SILTY CLAY LOAM
	2 3	1.25	27	- Atterberg limits: LL = 40, PI = 21
		0.75	28	- Atterberg limits: LL = 49, PI = 33
-30				- dry unit weight (pcf) = 99.7 at 28.0 ft.
322.12				
	3			Medium stiff, grey, LOAM, trace gravel
	3 2	0.5	22	
				- stiff drilling below 32.0 ft.
				- brownish grey, silty with fine-grained sand below 33.0 ft.
		0.5	26	- Atterberg limits: LL = 28, PI = 10
-35				- Hydrometer: 21.1% clay, 45.5% silt, 33.4% sand
	3			- dry unit weight (pcf) = 97.1 at 33.0 ft.
	2 3	0.5	34	
314.87				
				Medium stiff, reddish grey, SILT LOAM
		1.0	27	- Atterberg limits: LL = 25, PI = 09
-40				- Hydrometer:

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 2/21/24

ROUTE IL-13 DESCRIPTION Southwestern Abutment, EB Structure LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075
Notes Located at base of slope

BORING NO. B-241
Station N/A
Offset 0.0ft
Ground Surface Elev. 352.621 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				20.0% clay, 53.6% silt, 26.1% sand - dry unit weight (pcf) = 98.5 at 38.0 ft.
	3			
310.62	3	1.5	23	Medium stiff, reddish grey, SILT LOAM *(continued)* - trace fine-grained sandy clay seams below 41.0 ft.
	3			
				Loose, grey, SANDY LOAM, fine- to medium-grained sand, trace gravel - 0.5% retained on No. 4 sieve - 4.4% passing No. 200 sieve - continued without sampling below 45.0 ft.
-45		N/A	22	
-50				- increased drill chatter below approximately 50 ft.
-55				
-60				- hard drilling below approximately 59 ft.

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				Loose, grey, SANDY LOAM, fine- to medium-grained sand, trace gravel *(continued)*
291.12				End of Boring at 61.5 ft.
-65				
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 2/23/24

ROUTE IL-13 **DESCRIPTION** Northwestern Abutment, WB Structure **LOGGED BY** B. Fisher

SECTION (12-2) B-1 **LOCATION** Murphysboro, IL, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3 **PM**

COUNTY Jackson **DRILLING METHOD** Mud-Rotary **HAMMER TYPE** Automatic

STRUCT. NO. 039-0076
Notes Multiple offsets: concrete obstructions

BORING NO. B-242
Station N/A
Offset 10.0ft North
Ground Surface Elev. 354.999 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ **First Encounter** Not Available ft
▼ **Upon Completion** Not Available ft
▼ **After** ____ **Hrs.** Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
FILL: Medium dense, grey, CRUSHED LIMESTONE, sandy, clayey, with concrete fragments	14		
	10	N/A	16
	6		
		N/A	
-5			
349.50			
Soft to medium stiff, grey, SILT LOAM	3		
	2	1.5	24
	3		
- UU test performed: undrained shear strength = 0.38 tsf dry unit weight (pcf) = 98.8 at 8.0 ft.		1.0	25
-10			
- grey and brown below 11.0 ft.	1		
	2	0.5	27
	2		
- brown below 13.0 ft.			
- UU test performed: undrained shear strength = 0.50 tsf dry unit weight (pcf) = 98.5 at 13.0 ft.		0.5	25
-15			
- trace organics observed from approximately 16.0 to 17.5 ft.	2		
- bluegrey, moderately to highly plastic clay below 16.0 ft.	2	2.0	24
	2		
- UU test performed: undrained shear strength = 0.97 tsf dry unit weight (pcf) = 101.9		1.5	24
-20			

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
at 18.0 ft. Soft to medium stiff, grey, SILT LOAM *(continued)*	1		
	2	1.5	
	3		
- CU test performed: dry unit weight (pcf) = 96.9 at 23.0 ft.		0.5	25
-25			
	3		
- grey, trace fine-grained sand, with silt seams below 26.5 ft.	3	1.0	26
	2		
327.25			
Medium stiff, grey and purple, SILT LOAM			
- UU test performed: undrained shear strength = 0.65 tsf dry unit weight (pcf) = 92.6 at 28.0 ft.		0.5	31
-30			
	2		
	1	1.5	17
323.00	4		
Medium stiff, grey, SILT LOAM, trace sand seams			
- Hydrometer: 21.0% clay, 72.5% silt, 6.5% sand		1.5	27
- Atterberg limits: LL = 34, PI = 17			
-35			
- UU test performed: undrained shear strength = 0.71 tsf dry unit weight (pcf) = 98.7 at 33.0 ft.	3		
- Specific Gravity: 2.68	4	1.5	30
319.50	5		
Medium stiff, grey and red, SILTY CLAY LOAM, trace gravel			
- with gravel, possible cobbles below 38.0 ft.		N/A	21
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 2/23/24

ROUTE IL-13 DESCRIPTION Northwestern Abutment, WB Structure LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0076
Notes Multiple offsets: concrete obstructions

BORING NO. B-242
Station N/A
Offset 10.0ft North
Ground Surface Elev. 354.999 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
314.50				
	1			Soft, red, CLAY, moderately high plasticity
	2	2.5		
	2			
312.25				
	0			Very soft to medium stiff, brown and red, CLAY
	0	0.5	25	- due to poor recovery at ST-18, SS-19 was collected
	0			
-45				- sandy below 43.0 ft.
	1			
	2	0.5		
	3			- silty below 47.0 ft.
307.25				
		N/A	19	Medium loose, grey and black, SANDY LOAM, medium- to coarse-grained - 0.9% retained on No. 4 sieve - 5.5% passing No. 200 sieve
-50				
				- continued without sampling below 50.0 ft.
-55				
				- moderate drill chatter below approximately 57.0 ft.
-60				
-65				Medium loose, grey and black, SANDY LOAM, medium- to coarse-grained *(continued)*
				- very hard drilling below approximately 65.0 ft.
289.50				
				End of Boring at 65.5 ft.
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 3/11/24

ROUTE IL-13 DESCRIPTION Western Abutment, Median LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075 & 76
Notes Offset due to access

BORING NO. B-243
Station N/A
Offset 15.0ft West
Ground Surface Elev. 382.977 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				FILL: Medium dense, grey, CRUSHED LIMESTONE, working platform
381.48	4			
	4	3.5	16	FILL: Medium stiff, brown and grey, CLAY, trace gravel and crushed limestone fragments
	3			
				- with sand below 3.0 ft.
		2.0	21	
-5				
377.48				
				FILL: Stiff, brown and grey, SILT LOAM
	3			
	4	2.5	21	
	5			
				- Atterberg limits: LL = 29, PI = 9
		1.0	21	- Hydrometer: 15.0% clay, 70.7% silt, 14.3% sand
-10				- UU performed: Undrained Shear Strength = 0.85 tsf
	3			Dry Unit Weight = 103.6 pcf
	5	2.25	24	
	6			
				- Atterberg limits: LL = 42, PI = 23
		2.5	25	- Hydrometer: 24.2% clay, 66.3% silt, 9.4% sand
-15				- UU performed: Undrained Shear Strength = 0.51 tsf
	3			Dry Unit Weight = 99.9 pcf
	4	2.25	25	
	5			
365.23				
				FILL: Stiff, brown to grey, SILTY CLAY
		2.75	24	- Hydrometer: 47.7% clay, 44.4% silt, 7.9% sand
-20				

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				- Atterberg limits: LL = 51, PI = 34
	5			- Cu test performed Dry Unit Weight = 99.7 pcf
	5	2.5	20	FILL: Stiff, brown to grey, SILTY CLAY *(continued)*
	7			- grey below 21.0 ft.
359.98				
				FILL: Stiff, grey, SILT LOAM
		3.0	24	- Atterberg limits: LL = 42, PI = 21
-25				- Hydrometer: 26.6% clay, 62.7% silt, 10.8% sand
	2			- Cu test performed Dry Unit Weight = 101.1 pcf
	5	2.0	25	
	5			
355.23				
				Soft to stiff, grey, SILT LOAM, moderate plasticity
		1.25	22	- UU performed: Undrained Shear Strength = 1.11 tsf
-30				Dry Unit Weight = 102.0 pcf
	1			
	1	1.0	26	
	3			
				- dry unit weight (pcf) = 96.4 at 33.0 ft.
		1.5	32	- Atterberg limits: LL = 41, PI = 25
-35				
347.48				
	3			Stiff, grey mottled with red and tan, CLAY, moderately high plasticity, trace organics
	4	2.0	31	
	5			
				- slickensides noted at 38.0 ft.
		2.5	34	- Cu test performed
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 3/11/24

ROUTE IL-13 DESCRIPTION Western Abutment, Median LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075 & 76
Notes Offset due to access

BORING NO. B-243
Station N/A
Offset 15.0ft West
Ground Surface Elev. 382.977 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
342.48							
Medium stiff, grey, CLAY LOAM, with silty sand seams, trace organics and gravel	3						
	4	3.5	34		4		
	4				3	N/A	23
					4		
338.98		N/A				N/A	24
Loose, grey, SAND LOAM, with gravel							
-45				-65			
337.48							
Soft to medium stiff, grey, SILT LOAM	2						
	2	1.0	32				
	3						
- soft, saturated sand and silt caused drill tooling to plug and require cleanout multiple times from approximately 45.0 to 50.0 ft.							
- Cu test performed		N/A	27				
- Dry Unit weight = 93.3 pcf							
-50				-70			
- possible shear line noted at 48.5 ft.							
	3						
	3	1.0	26				
	3						
330.23							
Soft to medium stiff, grey, SILT							
- Hydrometer: 7.3% clay, 86.6% silt, 6.1% sand		1.0	32				
- dry unit weight (pcf) = 101.1 at 53.0 ft.							
-55				-75			
	3						
	1	1.0	29				
	3						
325.23							
Medium stiff, grey, SILT LOAM							
- Hydrometer: 24.0% clay, 62.4% silt, 13.2% sand		1.0	36				
- Atterberg limits:							
-60				-80			

LL = 29, PI = 13
- 4.0" sand seam at 59.5 ft.
Medium stiff, grey, SILT LOAM *(continued)* — 322.48

Loose, grey, SANDY LOAM, with clay seams and silt, trace gravel

- 3.0% retained on No. 4 sieve
- 6.2% passing No. 200 sieve

- continued without sampling below 65.0 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 3/11/24

ROUTE IL-13 DESCRIPTION Western Abutment, Median LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075 & 76
Notes Offset due to access

BORING NO. B-243
Station N/A
Offset 15.0ft West
Ground Surface Elev. 382.977 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

Loose, grey, SANDY LOAM, with clay seams and silt, trace gravel *(continued)*	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
	-85			
	-90			
289.98				
End of Boring at 93 ft.	-95			
	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 2/28/24

ROUTE IL-13 DESCRIPTION Northeastern Abutment, EB Structure LOGGED BY J. Stauffer

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075
Notes Multiple offsets: concrete obstructions

BORING NO. B-244
Station N/A
Offset 10.0ft South
Ground Surface Elev. 353.025 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
0				FILL: Grey, CRUSHED LIMESTONE, access road
352.78				
	5			FILL: Soft to stiff, grey and brown, SILTY CLAY LOAM, with gravel, trace sand, concrete fragments, and buried rip rap
	5		24	
	6			
				- dry unit weight (pcf) = 102.5 at 3.0 ft.
		1.0	25	- Atterberg limits: LL = 35, PI = 16
-5				
	2			
	1		17	
345.53	2			
				Very soft to medium stiff, grey mottled with brown, SILT LOAM
	0			- due to poor recovery at ST-4, SS-5 was collected
	0	0.5	27	
	0			
-10				
	0			
	1	0.25	29	
	1			
				- dry unit weight (pcf) = 95.4 at 13.0 ft.
		0.25	29	- Atterberg limits: LL = 34, PI = 15
-15				
	0			
	0	0.25	30	
	1			
				- UU performed: Undrained Shear Strength = 0.37-0.63 tsf
		1.0	25	Dry Unit Weight = 99.8-103.9 pcf
-20				
	1			- Atterberg limits: LL = 42, PI = 20
	2	0.75	26	- Hydrometer: 27.0% clay, 64.2% silt, 8.8% sand
	3			
				Very soft to medium stiff, grey mottled with brown, SILT LOAM *(continued)*
		1.5	26	- Atterberg limits: LL = 37, PI = 16
-25				- Hydrometer: 19.4% clay, 63.1% silt, 17.6% sand
	3			- Cu test performed
	4	1.25	29	- Dry Unit Weight = 94.8 pcf
	4			
				- Atterberg limits: LL = 34, PI = 14
		1.0	34	- Hydrometer: 29.0% clay, 56.1% silt, 14.9% sand
-30				- Cu test performed
				- Dry Unit Weight = 86.8 pcf
	1			
321.53				
	2	0.75	39	Soft to stiff, grey, SILT LOAM
	2			
				- Atterberg limits: LL = 30, PI = 12
		0.5	27	- Hydrometer: 25.7% clay, 60.2% silt, 13.4% sand
-35				
	5			
	5	0.5	24	
	4			
	0			- due to poor recovery at ST-17, SS-18 was collected
	0	0.25	27	
	0			
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 2/28/24

ROUTE IL-13 DESCRIPTION Northeastern Abutment, EB Structure LOGGED BY J. Stauffer

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0075
Notes Multiple offsets: concrete obstructions

BORING NO. B-244
Station N/A
Offset 10.0ft South
Ground Surface Elev. 353.025 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Soil Description
312.78				Soft to stiff, grey, LOAM
	2			
	2	0.5	26	
	2			
				- Atterberg limits: LL = 43, PI = 22
309.03		0.75	27	- Hydrometer: 23.5% clay, 42.4% silt, 34.0% sand
-45				
				Medium dense, grey, SAND, trace silt
	4			- 0.0% retained on No. 4 sieve
	6	1.0	24	-14.0% passing No. 200 sieve
	7			
				- clayey above 48.0 ft.
	3			- 1.4% retained on No. 4 sieve
	5	N/A	18	- 9.7% passing No. 200 sieve
	6			
-50				
				- continued without sampling below 50.0 ft.
-55				
-60				
				Medium dense, grey, SAND, trace silt *(continued)*
-65				
285.53				End of Boring at 67.5 ft.
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 3/5/24

ROUTE IL-13 DESCRIPTION Southeastern Abutment, WB Structure LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0076
Notes

BORING NO. B-245
Station N/A
Offset 0.0ft
Ground Surface Elev. 355.574 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
FILL: Grey, CRUSHED LIMESTONE, sandy, clayey, with concrete fragments 354.82	2			Dry Unit Weight = 88.9-94.2 pcf Soft to medium stiff, grey mottled with black, SILT LOAM *(continued)*	0		
FILL: Stiff, brown and grey, SILTY CLAY, trace sand, gravel, and crushed rock fragments	4 7	3.5	21		2 1	1.0	29
	2						
- due to hard, gravelly drilling at 3.0 ft., SS-2 was collected at 3.5 ft.	4 9	3.5	19	- Atterberg Limits: LL = 37, PI = 18 - Hydrometer: 21.6% clay, 67.7% silt, 10.8% sand		0.5	
-5				-25			
350.07 Soft to medium stiff, grey mottled with black, SILT LOAM	2			- trace sand lenses below 26.0 ft.	0		
	3 3	1.5	29		1 2	1.0	27
- Atterberg limits: LL = 41, PI = 23		1.5	27	- Atterberg Limits: LL = 31, PI = 13 - Hydrometer: 18.1% clay, 71.4% silt, 10.4% sand		1.5	
-10				-30			
- moderate to high plasticity, with organic material from 11.0 to 15.5 ft., including 1.0" wood fragments	0				2		
	1 2	0.5	29		3 4	1.5	32
				322.82 Medium stiff, grey, SILT LOAM, trace sand lenses			
- with 2.0" wood fragments, organic odor observed from 13.0 to 15.0 ft. - Atterberg limits: LL = 44, PI = 21		0.5	70	- Atterberg limits: LL = 32, PI = 12 - Hydrometer: 20.4% clay, 65.5% silt, 14.0% sand		0.75	25
-15				-35			
	1			- UU performed: Undrained Shear Strength = 0.54 tsf Dry Unit Weight = 97.1 pcf	1		
	1 2	1.0	33		2 3	0.75	21
- blueish grey below 18.0 ft. - UU performed: Undrained Shear Strength = 0.17-0.21 tsf		0.5	31	- Hydrometer: 23.4% clay, 63.0% silt, 12.9% sand - Atterberg limits:		1.5	25
-20				-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 3/5/24

ROUTE IL-13 DESCRIPTION Southeastern Abutment, WB Structure LOGGED BY B. Fisher

SECTION (12-2) B-1 LOCATION Murphysboro, IL, SEC. 3, TWP. 9S, RNG. 2W, 3 PM

COUNTY Jackson DRILLING METHOD Mud-Rotary HAMMER TYPE Automatic

STRUCT. NO. 039-0076
Notes

BORING NO. B-245
Station N/A
Offset 0.0ft
Ground Surface Elev. 355.574 ft

Surface Water Elev. Not Available ft
Stream Bed Elev. Not Available ft

Groundwater Elev.:
▽ First Encounter Not Available ft
▼ Upon Completion Not Available ft
▼ After ____ Hrs. Not Available ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
315.07				LL = 31, PI = 14 - trace gravel below 39.0 ft. - 2.0" sand seam at 39.5 ft.
	1			
	1	0.75	37	Soft, reddish grey, CLAY, moderately high plasticity
	2			
313.07				Very stiff, grey, SILTY CLAY LOAM - too hard to push tube at 43.0 ft., SS-18 was collected
	22			
	9	N/A	29	
	8			
-45				
310.07				Loose to medium dense, grey and brown, LOAM, with silt, trace gravel
	1			
	2	N/A	29	
	4			
				- Hydrometer: 23.3% clay, 37.3% silt, 39.3% sand - Atterberg limits: LL = 44, PI = 24
		N/A	25	
-50				
305.07				Medium dense, grey, SAND - 0.0% retained on No. 4 sieve - 9.7% passing No. 200 sieve
	4			
	5	N/A	24	
	6			
				- continued without sampling below 53.0 ft.
-55				
				- slight drill chatter below about 55.0 ft.
				- hard, rocky drilling below about 57.0 ft.
-60				

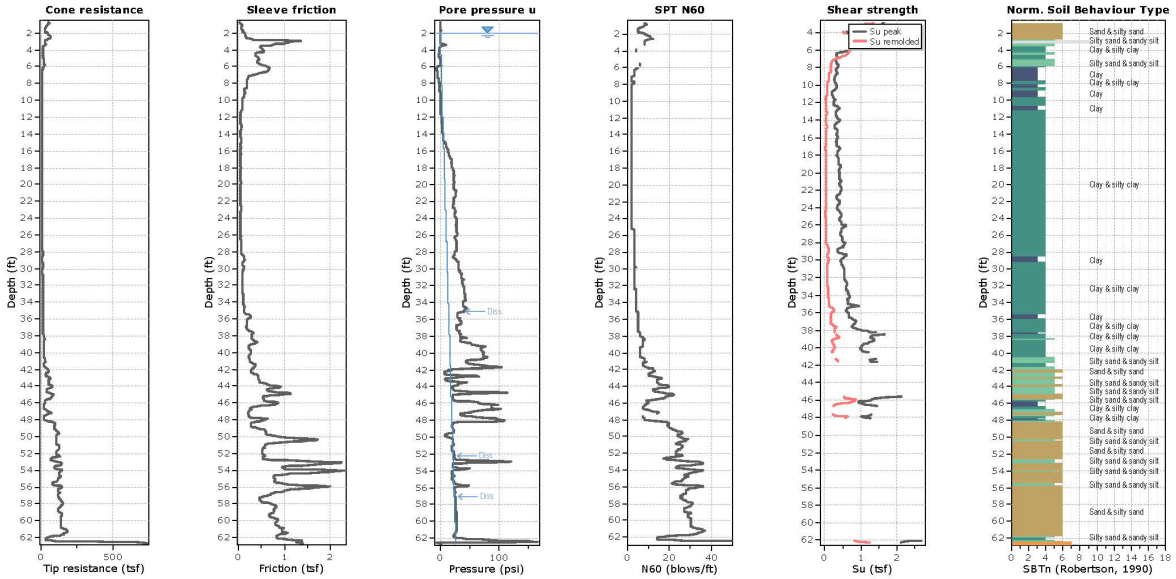
DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				Medium dense, grey, SAND *(continued)*
292.57				End of Boring at 63 ft.
-65				
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-241
Total depth: 62.67 ft



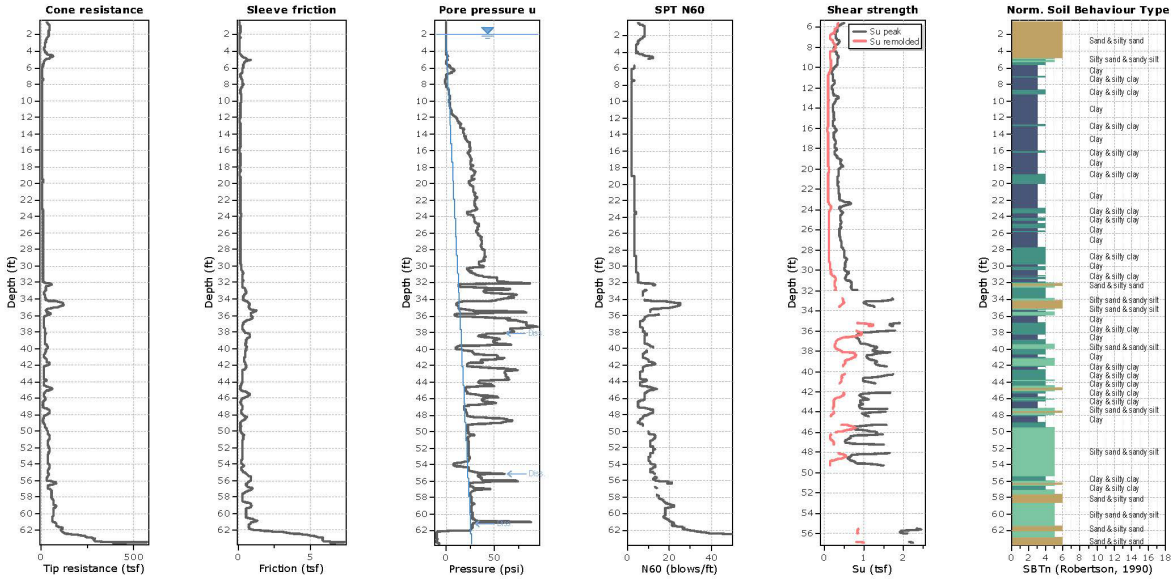
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-242
Total depth: 63.54 ft



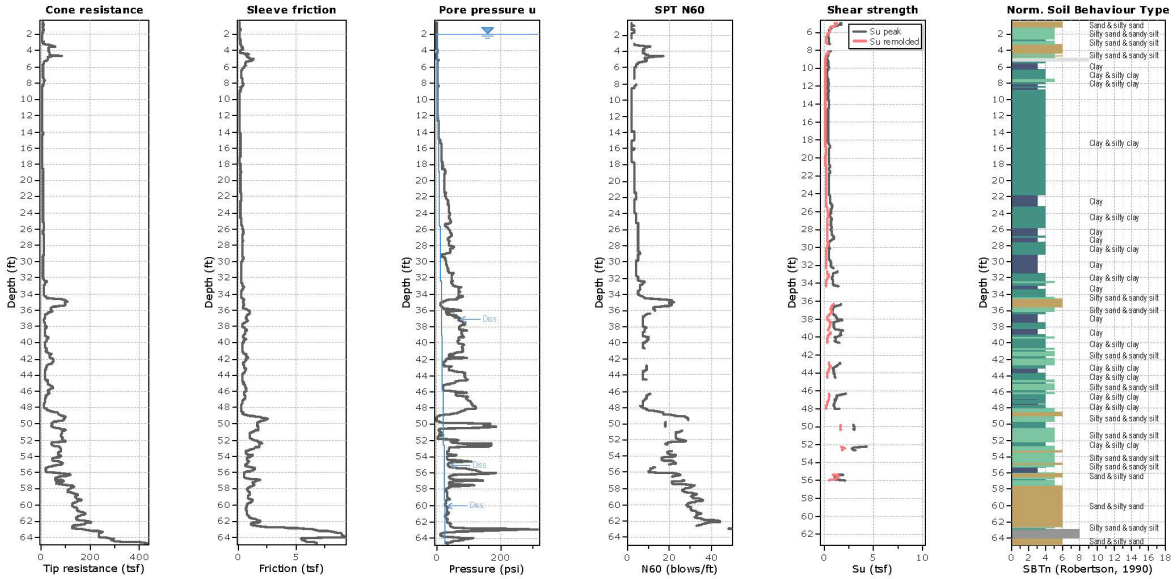
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-243
Total depth: 64.70 ft



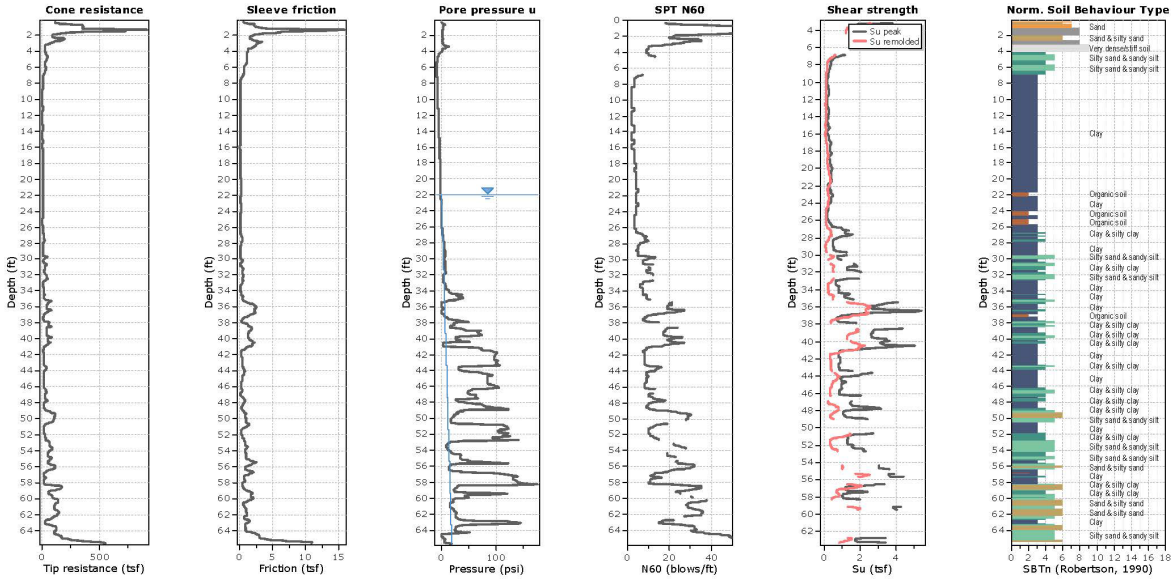
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-243AA
Total depth: 65.70 ft



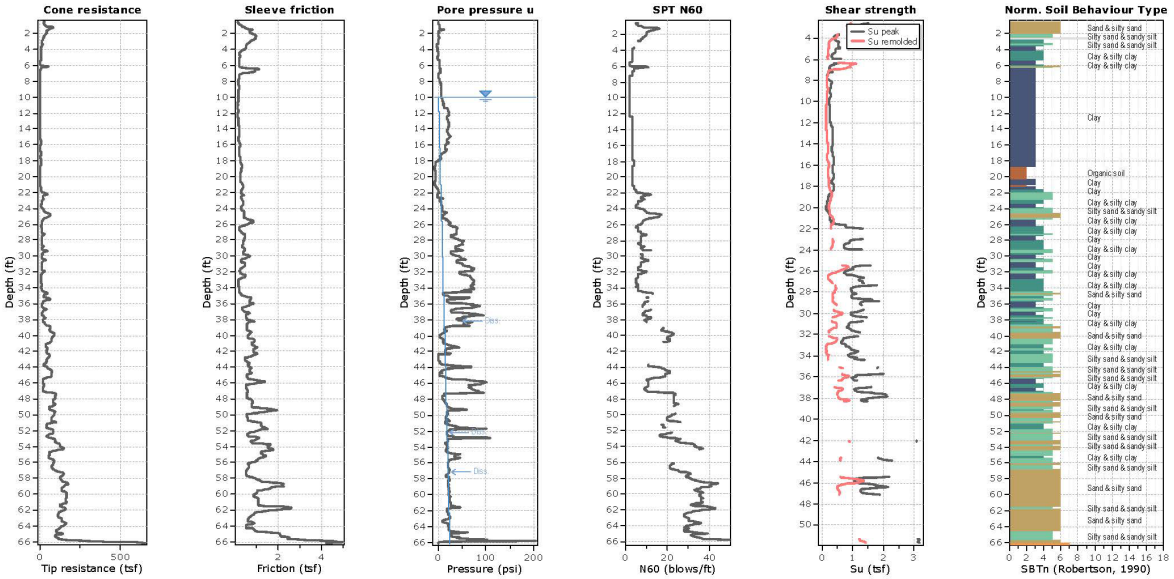
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-244
Total depth: 66.15 ft



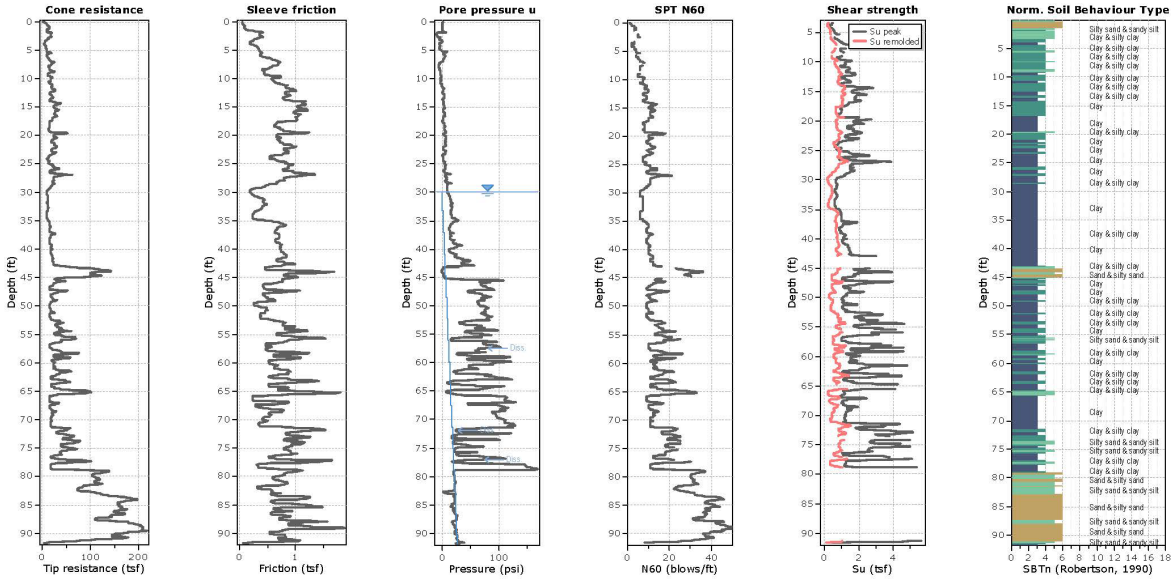
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-245
Total depth: 91.82 ft



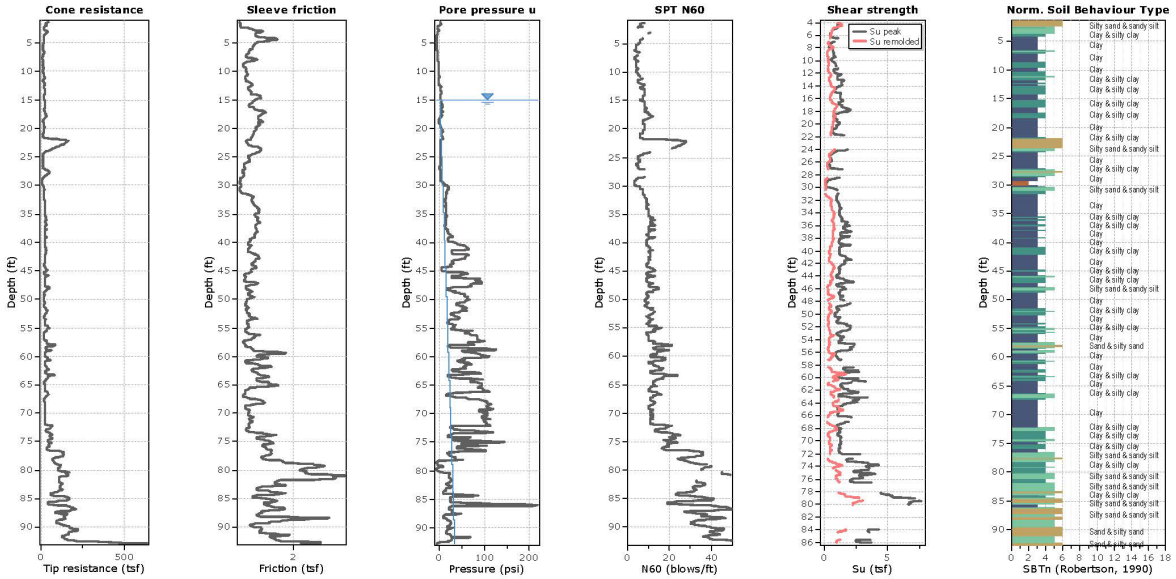
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-246
Total depth: 92.78 ft



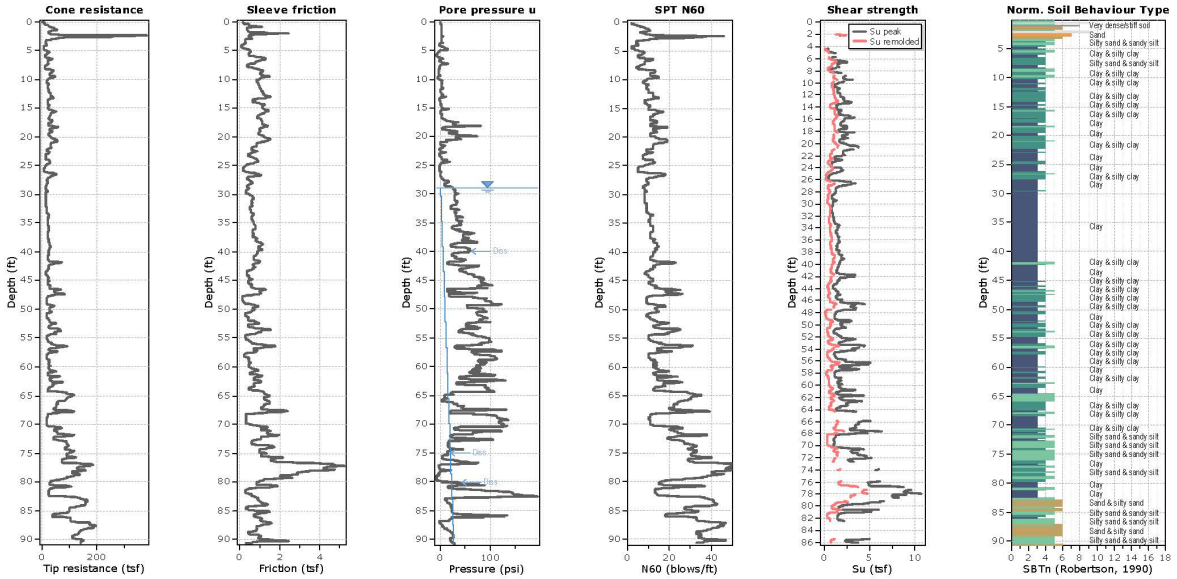
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-247
Total depth: 90.76 ft



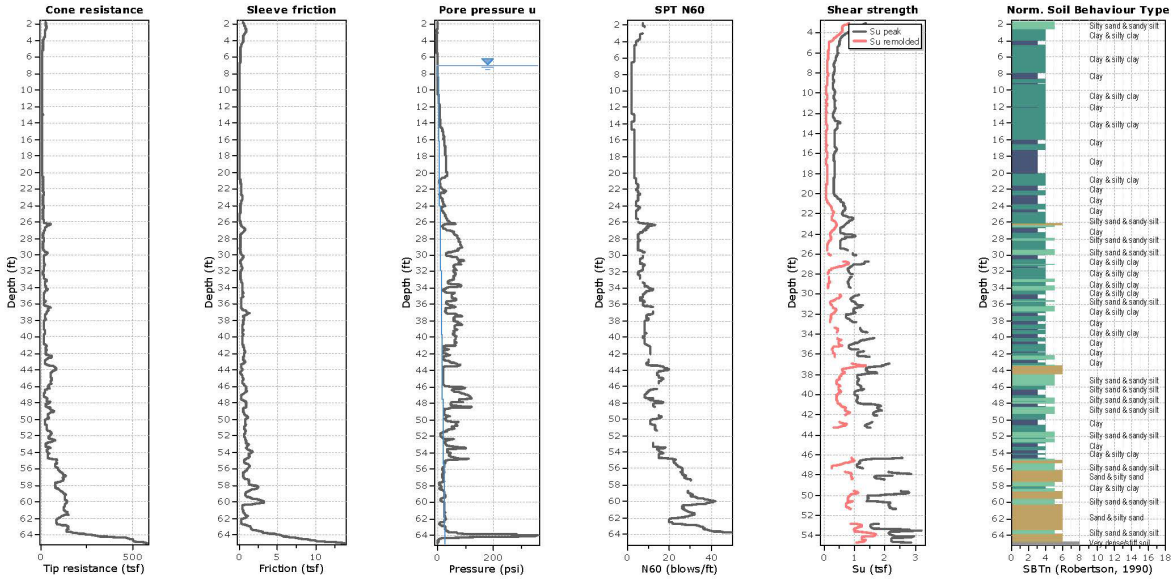
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT 248
Total depth: 65.03 ft



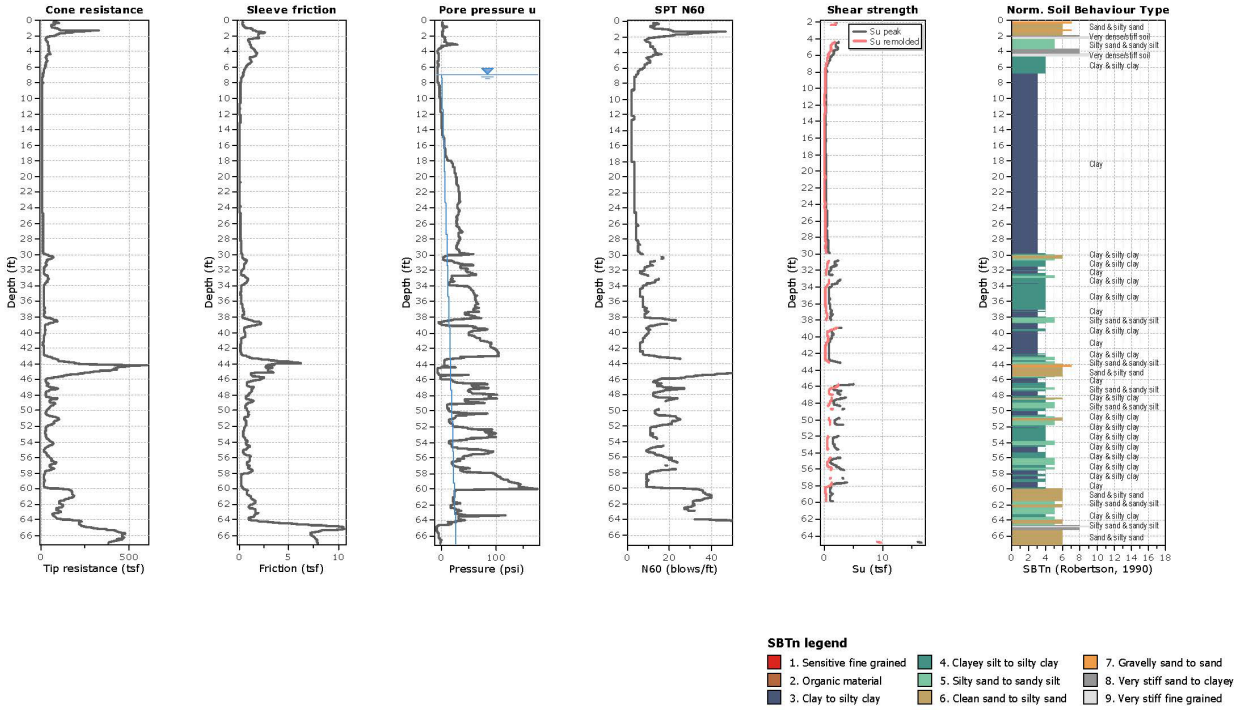
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-249A
Total depth: 66.98 ft



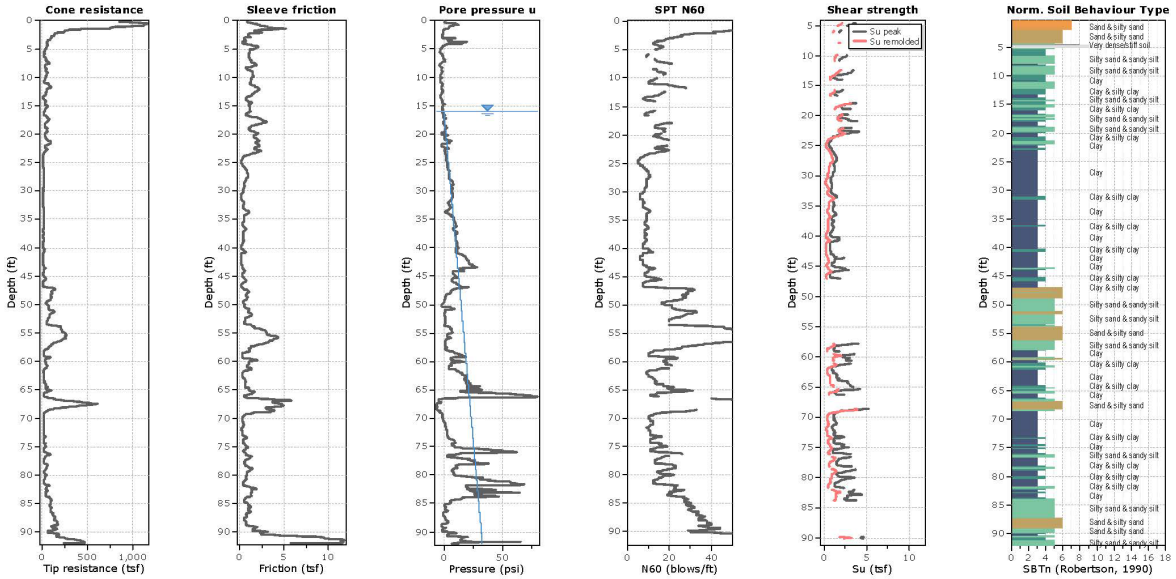
SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Geotechnology, LLC
11816 Lackland Road
St. Louis, Missouri
http://www.geotechnology.com

Project: **IL-13 over Big Muddy River**
Location: **Murphysboro, Illinois**

CPT-2410
Total depth: 92.07 ft



SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravelly sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log
Sheet 1 of 3

ILL 13 Over Big Muddy River

Route: ILL 13 Structure Number: 039-0013 and 039-0049 Date: 10/20/2004
Section Bored By: Bryan Keller
County: Jackson Location: E. Edge of Murphysboro Checked By: Rob Graeff

Boring No 1-S
Station 338+68
Offset 28' LT WB CL
Ground Surface 383.2 Ft

Surf Wat Elev: 339.7
Ground Water Elevation
when Drilling 343.7
At Completion 351.4
At: 24 Hrs: 355.0

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Very stiff, damp, brown, Silty Clay A-6				Stiff, very moist, brown mottled grey, Silty Clay to Clay A7-6	3	1.9B	23
					5		
	5				1		
	9	2.9B	13		2	1.3B	26
	10				3		
378.7				353.7			
Stiff, moist, brown, Silty Clay Loam A-6 5.0	2			Stiff, very moist, brown, Clay to Silty Clay A7-6 30.0	1		
	5	1.7B	16		2	1.2B	23
	7				3		
				351.2			
	1			Very stiff, very moist, brown mottled, grey, Clay to Silty Clay A7-6	1		
	5	1.2S	15		3	2.4B	22
	7				4		
				348.7			
10.0	1			Medium, very moist, brown mottled grey, Clay to Silty Clay A7-6 35.0	WH		
	5	1.2S	19		3	0.9B	25
	5				3		
371.2				346.2			
Very stiff, moist, brown, Silty Clay Loam A-6	1			Stiff, very moist, brown mottled grey, Clay to Silty Clay A7-6	1		
	5	2.4S	17		2	1.7B	25
	6				3		
368.7				343.7			
Very stiff, moist, brown mottled grey, Silty Clay A-6 15.0	1			Stiff, very moist, grey, Silty Clay Loam A-6 40.0	1		
	4	2.6B	23		1	1.5P	31
	5				1		
366.2							
Stiff, very moist, brown mottled grey, Silty Clay A-6	1						
	3	1.2B	25				
	3						
363.7				338.7			
Stiff, moist, grey, Silt Loam A-4 20.0	1			Stiff, wet, grey, Clay A7-6 45.0	WH		
	5	1.2B	21		1	1.1B	55
	4				WH		
361.2							
Stiff, moist to very moist, grey, Silty Clay A-6	1						
	2	1.6B	22				
	4						
358.7				333.7			
25.0	1			50.0	WH		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge, S-Shear, E-Estimated, P-Penetrometer)

Sheet 2 of 3

Route: ILL 13
Section:
County: Jackson
Date: 10/20/2004

Boring No: 1-S
Station: 338+68
Offset: 28' LT WB CL
Ground Surface: 383.2 Ft

	DEPTH	BLOW	Qu tsf	W%
Very stiff, moist, brown, Clay A7-6 with Sand Layers		1 2	2.6B	19
	328.7			
Stiff, very moist, grey, Clay A7-6 with Sand and Silt Loam Layers	55.0	1 3 9	1.8S	26
	60.0	1 2 6	1.1B	35
	318.7			
Stiff, very moist, brown, Clay A7-6	65.0	2 4 4	1.8S	32
	313.7			
Very stiff, very moist, brown, Clay A7-6	70.0	3 6 7	2.1B	31
	308.7			
	75.0	WH		
Medium, wet, brown, Clay A7-6		1 3	0.9B	52
	303.7			
Medium, very moist, brown, Clay A7-6 with Sand Layers	80.0	WH 3 5	0.6B	25
	85.0			
	293.7			
Medium, wet, grey, fine to medium Sand 93% Sand 3% Silt 4% Clay	90.0	10 13 16		21
	288.7			
Hard, dry, grey, Clay Shale over Coal	95.0 287.7	100/11"		
Bottom of hole = 95.5 ft Free water observed at 39.5 ft. Elevation referenced to Bk .E. Abut Sta 338+89 Elevation = 383.47 ft. To convert "N" values to "N60" valuesmultiply by 1.25.	100.0			

N-Std Pentr Test: 2" OD Sampler,

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log
Sheet 1 of 2

ILL 13 WB Over Big Muddy River
Route: ILL 13 Structure Number: 039-0013 and 039-0049 Date: 10/7/2004
Section Bored By: Bryan Keller
County: Jackson Location: E. Edge of Murphysboro Checked By: Rob Graeff

Boring No 2-S
Station 339+62
Offset 36' RT CL
Ground Surface 354.4 Ft

Surf Wat Elev: 338.5
Ground Water Elevation
when Drilling 322.4
At Completion
At: 24 Hrs: 349.6

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Very stiff, moist, brown, Silty Clay A-6					WH	0.4B	27
					WH		
				327.4			
	2			Medium, very moist, grey, Clay	WR		
	5	2.6B	17	A7-6	WH	0.7B	24
	8				WH		
349.9				324.9			
Stiff, moist, brown, Silty Clay A-6 5.0	2			Medium, very moist, brown, Clay A7-6 30.0	1		
	4	1.7S	20		2	0.7B	28
	5				2		
347.4				322.4			
Medium, very moist, grey, Clay A7-6	1			Soft, wet, brown, Clay A7-6	WH		
	2	0.7B	39	with Sand layers	1	0.4B	29
	2				1		
344.9				319.9			
Soft to medium, very moist, grey, Clay to Silty Clay A7-6 10.0	WH			Medium, wet, brown, Clay to Silty Clay A7-6 35.0	WH		
	1	0.5B	31		3	0.8B	26
	1				5		
342.4				317.4			
Very soft, very moist, grey, Clay to Silty Clay A7-6	WH			Stiff, very moist, brown, Clay	1		
	WH	0.2B	32	A7-6 with some Gravel	2	1.3S	34
	WH				2		
339.9				314.9			
Soft, very moist, grey, Clay to Silty Clay A7-6 15.0	WH			Dense, wet, grey, Sandy Gravel 33% Sand 17% Silt 6% Clay 44% Gravel 40.0	1		
	WH	0.3B	32		20		14
	WH				21		
337.4							
Soft to medium, very moist, grey, Clay A7-6	WR						
	WH	0.5B	29				
	WH						
334.9				309.9			
Soft, very moist, grey, Clay A7-6 20.0	WH			Stiff, wet, brown, Clay A7-6 45.0	WH		
	WH	0.4B	29		1	1.1S	43
	WH				2		
	WH						
	WH	0.4B	29				
	WH						
				304.9			
25.0	WR			50.0	1		

N-Std Pentr Test: 2" OD Sampler,

Sheet 2 of 2

Route: ILL 13
Section:
County: Jackson
Date: 10/7/2004

Boring No: 2-S
Station: 339+62
Offset: 36' RT CL
Ground Surface: 354.4 Ft

	DEPTH	BLOW	Qu tsf	W%		DEPTH	BLOW	Qu tsf	W%
Stiff, very moist, grey, Clay A7-6 with Sand layers		1 2	1.3B	28					
	299.9								
Very loose, wet, grey, very fine Silty Sand 92% Sand 2% Silt 6% Clay	55.0	WR WR WR		25		80.0			
	294.9								
Medium, wet, grey, very fine Silty Sand with some Gravel and Clay layers 79% Sand 4% Silt 8% Clay 9% Gravel	60.0	4 5 7		21		85.0			
	289.9								
Hard, dry, black,Clay Shale	289.4 65.0	100/8"				90.0			
Bottom of hole = 65.0 ft. Free water observed at 32.0 ft. Elevation referenced to Bk East Abutment Sta 338+65 Elevation = 383.64 ft. To convert "N" values to "N60" values multiply by 1.25.	70.0					95.0			
	75.0					100.0			

N-Std Pentr Test: 2" OD Sampler,

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log
Sheet 1 of 2

ILL 13 EB Over Big Muddy River

Route: ILL 13 Structure Number: 039-0013 and 039-0049 Date: 10/5/2004

Section Bored By: Bryan Keller

County: Jackson Location: E. Edge of Murphysboro Checked By: Rob Graeff

Boring No 3-S
Station 339+94
Offset 30' LT CL
Ground Surface 353.7 Ft

Surf Wat Elev: 338.5
Ground Water Elevation
when Drilling 324.2
At Completion
At: 24 Hrs: 350.4

DEPTH	BLOW	Qu tsf	W%		DEPTH	BLOW	Qu tsf	W%
Hard, damp, brown, Silty Clay A7-6					Medium, very moist, grey, Silty Clay A-6	WH WH	0.6B	28
				326.7				
	2				Medium, very moist, grey, Clay	WH		
	8	4.5P	17		A7-6	WH	0.7B	26
	15					WH		
349.2				324.2				
Very stiff, damp to moist, brown, 5.0	2				Medium, very moist, grey, Clay 30.0	WH		
Silty Clay A7-6	3	2.5P	16		to Silty Clay A7-6 with	3	0.7B	32
	3				Sand layers	2		
346.7				321.7				
Stiff, moist, brown, Silty Clay	WH				Very loose, wet, grey, fine	WH		
to Clay A7-6	1	1.2B	17		Silty Sand with Silty Clay Layers	WH		24
	1				90% Sand; 7% Silt; 3% Clay	WH		
344.2				319.2				
Soft, very moist, grey, Clay to 10.0	WH				Mdium, wey, grey, Sandy 35.0	WH		
Silty Clay A7-6	1	0.4B	31		Gravel	9		14
	WH				45% Sand	8		
					11% Silt			
					3% Clay; 41% Gravel 316.7			
	WH				Loose, wet, grey, Sandy	4		
	WH	0.3B	33		Gravel	4		
	WH				45% Sand	4		
					11% Silt			
					3% Clay; 41% Gravel 314.2			
15.0	WH				Stiff, very moist, brown, Clay 40.0	1		
	WH	0.3B	31		A7-6 with some Gravel	1	1.2B	30
	WH					2		
336.7								
Soft to medium, very moist, grey,	WH							
Clay to Silty Clay A7-6	WH	0.5B	29					
	WH							
					309.2			
20.0	WH				Medium, very moist, grey, Clay 45.0	1		
	WH	0.5B	29		A7-6	2	0.8B	34
	WH					2		
331.7								
Soft, very moist, grey, Clay to	WH							
Silty Clay A7-6	WH	0.3B	30					
	WH							
329.2				304.2				
25.0	WH				50.0	WH		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2

Route: ILL 13
Section:
County: Jackson
Date: 10/5/2004

Boring No: 3-S
Station: 339+94
Offset: 30' LT CL
Ground Surface: 353.7 Ft

	DEPTH	BLOW	Qu tsf	W%
Soft, wet, brown, Silty Clay A7-6 with Silt Loam layers		4 3	0.4B	27
	299.2			
Very loose, wet, grey, fine Silty Sand	55.0 298.2	1 1		18
Medium, wet, brown, Clay A7-6		2	0.9B	43
	294.2			
Medium, very moist, brown, Clay A7-6	60.0	2 3 7	0.6B	29
	289.2			
Hard, dry, black Coal	65.0	100/5"		
Hard, dry, black Coal	70.0	100/3"		
Hard, dry, black Coal	278.7	75.0 100/3"		

Bottom of hole = 75.0 ft

Free water observed at 29.5 ft

Elevation referenced to Bk East Abut Sta 338+89 Elevation = 383.47 ft.

To convert "N" values to "N60" values multiply by 1.25.

DEPTH	BLOW	Qu tsf	W%
80.0			
85.0			
90.0			
95.0			
100.0			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log
Sheet 1 of 2

ILL 13 WB Over Big Muddy River
Route: ILL 13 Structure Number: 039-0013 and 039-0049 Date: 9/29/2004
Section Bored By: Bryan Keller
County: Jackson Location: E. Edge of Murphysboro Checked By: Rob Graeff

Boring No 4-S
Station 341+61
Offset 31' RT CL
Ground Surface 351.7 Ft

Surf Wat Elev: 339.7
Ground Water Elevation
when Drilling 342.2
At Completion
At: 96 Hrs: 344.7

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Stiff, very moist, brown, Silty Clay A7-6				Soft to medium, very moist, grey, Clay A7-6	WH	0.5B	28
					WH		
	1				WH		
	2	1.2B	28		WH	0.5B	26
	3				WH		
347.2				322.2			
Soft, very moist, brown mottled grey, Silty Clay A-6 5.0	1			Medium, very moist, brown mottled grey, Clay to Silty Clay A7-6 30.0	WH		
	1	0.4B	28		WH	0.6B	26
	2				WH		
344.7				319.7			
Very soft, wet, grey mottled brown, Silty Clay A-6	WH			Stiff, very moist, grey, Clay A7-6	1		
	WH	0.2B	31		2	1.2B	24
	WH				2		
342.2				317.2			
Soft, wet, grey, Clay to Silty Clay A7-6 10.0	WH			Medium, very moist, grey, Clay A7-6 35.0	WH		
	1	0.3B	31		WH	0.7B	24
	WH				WH		
339.7							
Soft to medium, wet, brown	WH				WH		
mottled grey, Silty Clay to Clay A7-6	WH	0.5B	29		WH	0.8B	24
	WH				1		
337.2				312.2			
Soft, wet, brown mottled grey, Silty Clay to Clay A7-6 15.0	WH			Stiff, very moist, brown, Clay A7-6 40.0	WH		
	WH	0.4B	28		1	1.2B	27
	WH				1		
	WH						
	WH	0.4B	28				
	WH						
20.0	WH			307.2			
	WH	0.4B	28	Stiff, wet, brown, Clay A7-6 with fine Sand layers 45.0	2		
	WH				2	1.2B	43
329.7					WH		
Medium, very moist, grey, Clay to Silty Clay A7-6	WH						
	WH	0.7B	26				
	WH						
327.2				302.2			
25.0	WH			50.0	1		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2

Route: ILL 13
Section:
County: Jackson
Date: 9/29/2004

Boring No: 4-S
Station: 341+61
Offset: 31' RT CL
Ground Surface: 351.7 Ft

	DEPTH	BLOW	Qu tsf	W%
Medium, wet, grey, Silty Clay A-6		4 4	0.7S	27
	297.2			
Loose to medium, wet, grey, fine Silty Sand with some Gravel 81% Sand 7% Silt 4% Clay 8% Gravel	55.0	1 5 5		21
	292.2			
Medium, wet, grey, fine Silty Sand with some Gravel 69% Sand 9% Silt 7% Clay 15% Gravel	60.0	3 6 10		21
	288.7			
Hard, dry, black Coal	65.0	100/3"		
Hard, moist, black, Coal with Clay Shale Layers	70.0	100/5"		
Hard, dry, grey, Clay Shale	276.7	75.0 100/3"		

Botom of hole = 75.0ft.

Free water observed at 9.5 ft.

Elevation referenced to BK W. Abut Elevation = 383.64 ft.

To convert "N" values to "N60" values multiply by 1.25.

DEPTH	BLOW	Qu tsf	W%
80.0			
85.0			
90.0			
95.0			
100.0			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log
Sheet 1 of 2

ILL 13 EB Over Big Muddy River

Route: ILL 13 Structure Number: 039-0013 and 039-0049 Date: 10/4/2004
Section Bored By: Bryan Keller
County: Jackson Location: E. Edge of Murphysboro Checked By: Rob Graeff

Boring No 5-S
Station 341+88
Offset 22' RT CL
Ground Surface 351.6 Ft

Surf Wat Elev: 338.5
Ground Water Elevation
when Drilling 312.1
At Completion
At: 24 Hrs: 346.4

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Stiff, very moist, brown, Silty Clay A-6				Medium, very moist, grey, Silty Clay to Clay A7-6	WH WH	0.6B	29
	1				WH		
	3 3	1.6S	23		WH 1	0.8B	28
347.1							
Stiff, very moist, grey, Clay to Silty Clay A7-6 5.0	1			30.0	WH		
	3 4	1.2B	22		1 1	0.9B	25
344.6				319.6			
Very soft, wet, grey, Silty Clay A-6	WH			Medium to stiff, very moist, grey, Clay to Silty Clay A7-6	WH		
	1 1	0.2B	30		WH 3	1.0B	25
10.0	WH			317.1			
	1 1	0.2B	33	Stiff, very moist, grey, Clay A7-6 35.0	WH 1 2	1.1B	24
339.6				314.6			
Soft, wet, grey mottled brown,	WH			Medium, very moist, brown,	1		
Silty Clay A-6	WH WH	0.3B	29	Clay A7-6 with Silt Loam seams	2 2	0.9S	35
337.1				312.1			
Soft, wet, grey, Clay to Silty Clay A7-6 15.0	WH			Stiff, very moist, brown, Clay A7-6 with fine Sand layers 40.0	WH		
	WH WH	0.4B	30		2 2	1.1S	27
334.6							
Medium, very moist, grey, Clay to Silty Clay A7-6	WH						
	WH WH	0.6B	27				
332.1				307.1			
Soft, very moist, grey, Silty Clay Loam A-6 20.0	WH			Very stiff, very moist, grey, Clay Loam A-6 with Sand layers 45.0	3		
	WH WH	0.4B	27		6 5	2.6P	28
329.6							
Medium, very moist, grey, Silty Clay to Clay A7-6	WH						
	WH WH	0.6B	27				
				302.1			
25.0	WH			50.0	WH		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2

Route: ILL 13
Section:
County: Jackson
Date: 10/4/2004

Boring No: 5-S
Station: 341+88
Offset: 22' RT CL
Ground Surface: 351.6 Ft

	DEPTH	BLOW	Qu tsf	W%
Very loose, wet, grey, very fine Silty Sand 93% Sand 5% Silt 2% Clay		2 1		21
	297.1			
Stiff, wet, brown, Clay A7-6 with Sand layers	55.0	WH 4 10	1.1B	51
	292.1			
Medium, wet, grey, fine Sand with Gravel and Coal Chips	60.0 291.1	4 18		25
Hard, dry, grey, weathered Clay Shale	289.6	49		
Hard, dry, grey, Clay Shale over Coal	288.6	100/5"		
Bottom of hole = 63.0 ft.				
Free water observed at 39.5 ft.	65.0			
Elevation referenced to BK of W Abut Sta 343+06 CL Elevation = 383.47 ft.				
To convert "N" values to "N60" values multiply by 1.25.				
	70.0			
	75.0			

	DEPTH	BLOW	Qu tsf	W%
	80.0			
	85.0			
	90.0			
	95.0			
	100.0			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log

ILL 13 Over Big Muddy River

Sheet 1 of 3

Route: ILL 13 Structure Number: 039-0013 and 039-0049 Date: 10/8/2004

Section Bored By: Bryan Keller

County: Jackson Location: E. Edge of Murphysboro Checked By: Rob Graeff

Boring No 6-S
Station 343+17
Offset 22' RT EB CL
Ground Surface 383.0 Ft

Surf Wat Elev: 338.5
Ground Water Elevation
when Drilling 333
At Completion
At: 68 Hrs: 357.5

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Very stiff, damp, brown, Silty Clay A-6				Very stiff, moist, brown, Silty Clay A-6	3 4	2.1B	21
				356.0			
	1			Soft, very moist, brown,	WH		
	4 8	2.5B	11	Silty Clay loam A-6	1 2	0.4B	24
				353.5			
5.0	2			Stiff, moist to very moist, grey,	30.0 WH		
	4 3	2.1B	15	Clay A7-6	2 2	1.1B	21
376.0				351.0			
Very stiff, moist to very moist, brown, Silty Clay A-6	1			Medium, very moist, grey,	WH		
	3 3	2.1B	20	Clay A7-6	2 2	0.9B	29
373.5							
Stiff, very moist, brown, Silty	10.0 1				35.0 WH		
Clay A7-6	2 2	1.1B	24		1 2	0.8B	29
371.0				346.0			
Stiff, moist to very moist, brown,	1			Medium, very moist, brown	WH		
Silty Clay to Silty Clay Loam A-6	3 4	1.3S	20	mottled grey, Clay to Silty Clay A7-6	2 3	0.9B	27
				343.5			
15.0	1			Medium, very moist, grey,	40.0 WH		
	2 4	1.3S	23	Clay A7-6	1 3	0.7B	26
366.0							
Medium, very moist, brown,	WH						
Silty Clay Loam A-6	2 2	0.7S	22				
363.5				338.5			
Medium, very moist, brown,	20.0 WH			Stiff, very moist, brown, Clay	45.0 WH		
Silty Clay to Silty Clay Loam A-6	1 1	0.6S	25	A7-6	1 1	1.2S	31
361.0							
Medium, moist to very moist, grey,	WH						
Clay Loam A-6	3 3	0.9B	20				
358.5				333.5			
25.0	WH			50.0	WH		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 3

Route: ILL 13
Section:
County: Jackson
Date: 10/8/2004

Boring No: 6-S
Station: 343+17
Offset: 22' RT EB CL
Ground Surface: 383.0 Ft

	DEPTH	BLOW	Qu tsf	W%
Medium, very moist, brown, Clay A7-6		2 1	0.8S	28
	328.5			
Stiff, very moist, brown, Clay A7-6	55.0	1 1 4	1.4S	30
	323.5			
Soft to medium, very moist, grey, Clay to Silty Clay A7-6 with Sand Layers	60.0	WH 2 2	0.5B	24
	318.5			
Stiff, very moist, brown, Clay A7-6 with Clay Loam and Sand Layers	65.0	4 7 4	1.3B	32
	313.5			
Stiff, very moist, brown, Clay A7-6 with Sand Layers	70.0	WH 3 3	1.1S	35
	308.5			
	75.0	1		

	DEPTH	BLOW	Qu tsf	W%
Medium, very moist, brown, Clay A7-6 with Sand Layers		4 2	0.9B	32
	303.5			
Loose to medium, wet, grey, fine Sand with Coal Chips and some Gravel 57% Sand 6% Silt 4% Clay 33% Gravel	80.0	4 5 5		23
	85.0			
	293.5			
Medium, wet, grey, Sandy Gravel 72% Sand; 15% Silt 6% Clay; 7% Gravel	90.0	4 10 15		17
	291.0			
Hard, dry, black Coal		100/3"		
	95.0			
Hard, dry, black Coal		100/5"		
	100.0			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 3 of 3

Route: ILL 13
Section:
County: Jackson
Date: 10/8/2004

Boring No: 6-S
Station: 343+17
Offset: 22' RT EB CL
Ground Surface: 383.0 Ft

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Hard, dry, black Clay Shale 280.5	100/3"						
Bottom of hole = 102.5 ft.							
Free water observed at 50.0 ft.							
105.0				130.0			
Elevation referenced to Bk W Abut Str # 039-0013 Sta 343+06 Elevation = 383.47							
To convert "N" values to "N60" values multiply by 1.25.							
110.0				135.0			
115.0				140.0			
120.0				145.0			
125.0				150.0			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail, B-Bulge S-Shear E-Estimated P-Penetrometer)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 1 of 1

Date 07/15/09

ROUTE FAP 331 **DESCRIPTION** Structure Replacement crossing Big Muddy River **LOGGED BY** SCI

SECTION 12-2B-2 **LOCATION** East of Murphysboro; SW 1/4, **SEC.** 3, **TWP.** 9S, **RNG.** 2W

COUNTY Jackson **DRILLING METHOD** CME 750 w/HSA **HAMMER TYPE** Automatic

STRUCT. NO. 039-0013
Station 340+71.00

BORING NO. B-101
Station 339+28
Offset 75 ft Lt EB
Ground Surface Elev. 363.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 345.0 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				SILTY CLAY: Brown (A-7)
				Classification of materials in upper 20 feet based on observation of augered cuttings.
-5				
				Temporary benchmark - brass disk at southeast corner of east abutment. USGS Topographic Map - El. 384
-10				
-15				
▼				
343.0 -20				
				SILTY CLAY: Gray, some fine sand (A-6) ST pushed 20' to 22'. Recovery 22"; UU - 1.0 tsf; DD - 94.2 pcf; MC - 28% Becomes brownish gray, trace fine sand ST pushed 22' to 24'. Recovery 24"; UU - 1.2 tsf; DD - 92.9 pcf; MC - 29%
				Becomes gray, some fine sand 338.3
-25				
				SAND: Gray, fine (A-3) ST pushed 24' to 26'. Recovery 23". UU - 1.1 tsf; DD - 90.5 pcf; MC - 31% 336.8
				CLAY: Gray, trace fine sand (A-7) ST pushed from 26' to 28'. Recovery 23"; UU - 1.1 tsf; DD - 87.7 pcf; MC- 33% 336.0
-30				
				SILTY CLAY: Gray, some fine sand (A-6) Becomes maroon and gray Triaxial shear test performed on ST pushed from 28' to 30'; LL-25, PL-18, PI-7 331.0
				SAND: Maroon and gray, fine (A-3) 329.8
				SILTY CLAY: Maroon, some fine sand 329.0 (A-6) ST pushed 32' to 34'. Recovery 23"; UU - 3.0 tsf; DD - 99.7 pcf; MC - 25%
-35				
				SAND: Brown, fine 327.0 (A-3)
				Boring terminated at 36.0 ft.
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 07/14/09

ROUTE FAP 331 **DESCRIPTION** Structure Replacement crossing Big Muddy River **LOGGED BY** SCI

SECTION 12-2B-2 **LOCATION** East of Murphysboro; SW 1/4, **SEC.** 3, **TWP.** 9S, **RNG.** 2W

COUNTY Jackson **DRILLING METHOD** CME 750 w/HSA **HAMMER TYPE** Automatic

STRUCT. NO. 039-0049
Station 340+71.00

BORING NO. B-103
Station 343+09
Offset 14 ft Rt WB
Ground Surface Elev. 374.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 329.0 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
ASPHALT - 4 inches 373.7 CONCRETE - 9 inches 372.9 CRUSHED ROCK 372.5 FILL: Brown, silty clay, trace to some sand (A-6) Classification of materials based on observation of augered cuttings.				FILL: Gray, silty clay, trace to some sand (A-7) *(continued)* 352.0 CLAY: Brown and gray (A-7) ST pushed 22' to 24'. Recovery 16". UU - 2.3 tsf; DD - 97.4 pcf; MC - 24%			
369.0 -5 FILL: Gray, silty clay (A-7) Becomes brown Temporary benchmark - brass disk at southeast corner of east abutment. USGS Topographic Map - El. 384				-25 348.5 SILTY CLAY: Brown and gray (A-7) Triaxial shear test performed on ST pushed from 27' to 29'; LL-47, PL-17, PI-30			
-10 361.0 FILL: Grayish brown, silty clay (A-6)				344.0 -30 CLAY: Gray, some sand (A-7)			
-15 358.5 FILL: Gray, silty clay, trace to some sand (A-7)				340.0 SILTY CLAY: Brown and gray (A-6) ST pushed 34' to 36'. Recovery 19". UU - 1.3 tsf; DD - 96.2 pcf; MC - 27%			
-20				334.0 -40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 07/14/09

ROUTE FAP 331 **DESCRIPTION** Structure Replacement crossing Big Muddy River **LOGGED BY** SCI

SECTION 12-2B-2 **LOCATION** East of Murphysboro; SW 1/4, **SEC.** 3, **TWP.** 9S, **RNG.** 2W

COUNTY Jackson **DRILLING METHOD** CME 750 w/HSA **HAMMER TYPE** Automatic

STRUCT. NO. 039-0049
Station 340+71.00

BORING NO. B-103
Station 343+09
Offset 14 ft Rt WB
Ground Surface Elev. 374.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 329.0 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				SILTY CLAY: Brown, trace to some sand (A-7)
329.0 ▼				
-45				
328.5				SAND: Brown and gray, fine to coarse (A-1)
327.5				CLAY: Gray (A-7) ST pushed 45' to 47'. Recovery 23". UU - 3.1 tsf; DD - 95.6 pcf; MC - 27%
327.0				SILTY CLAY: Gray (A-6)
				Boring terminated at 47.0 ft.
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 7/13,14/2009

ROUTE FAP 331 **DESCRIPTION** Structure Replacement crossing Big Muddy River **LOGGED BY** SCI

SECTION 12-2B-2 **LOCATION** East of Murphysboro; SW 1/4, **SEC.** 3, **TWP.** 9S, **RNG.** 2W

COUNTY Jackson **DRILLING METHOD** CME 750 w/HSA **HAMMER TYPE** Automatic

STRUCT. NO. 039-0013
Station 340+71.00

BORING NO. B-104
Station 343+61
Offset 14 ft Rt EB
Ground Surface Elev. 383.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 343.0 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				ASPHALT - 9 inches
382.3				
382.0				CRUSHED ROCK
	12			FILL: Brown, sandy clay, some
	9	4.5	7	gravel, cinders
	5	P		(A-4)
380.8				
				FILL: Brown, sandy clay
				(A-6)
				Becomes reddish brown
	3			
	3	2.0	21	
-5	4	B		
377.5				
				FILL: Brown, silty clay, trace to
	3			some sand
	3	2.3	21	(A-7)
	3	P		Poor recovery
	1			
	2	1.5	24	
-10	4	P		
				Temporary benchmark - brass
				disk at southeast corner of east
				abutment. USGS Topographic
	3			Map - El. 384
	4	2.0	22	Poor recovery
	5	P		
	1			Becomes gray
	3	1.7	29	
	4	B		Becomes brown and gray
-15				
367.5				
				FILL: Gray, silty clay
	2			(A-6)
	3	1.2	23	
	5	B		
	2			Becomes brown and gray,
	4	2.8	22	trace to some sand
363.0	7	B		
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				FILL: Brown, clay
				(A-7)
361.5				
	4			
	6	3.0	28	FILL: Gray, clayey silt
	9	P		(A-4)
360.0				
				FILL: Gray, silty clay, trace to
	1			some sand
	3	1.4	25	(A-7)
-25	5	B		
	3			
	4	2.3	22	
	8	P		
355.0				
				SILTY CLAY: Gray
	1			(A-6)
	1	0.6	25	
-30	3	B		
351.0				
				CLAY: Brown, trace sand
				(A-7)
	2			
348.8	4	1.2	24	
	4	B		SILTY CLAY: Brown
-35				(A-7)
346.0				
				CLAY: Gray and brown, trace
				shells
				(A-7)
	3			
	5	3.1	44	
▼-40	6	S/10		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 7/13,14/2009

ROUTE FAP 331 **DESCRIPTION** Structure Replacement crossing Big Muddy River **LOGGED BY** SCI

SECTION 12-2B-2 **LOCATION** East of Murphysboro; SW 1/4, **SEC.** 3, **TWP.** 9S, **RNG.** 2W

COUNTY Jackson **DRILLING METHOD** CME 750 w/HSA **HAMMER TYPE** Automatic

STRUCT. NO. 039-0013
Station 340+71.00

BORING NO. B-104
Station 343+61
Offset 14 ft Rt EB
Ground Surface Elev. 383.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 343.0 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
342.0				SAND: Greenish gray, fine to medium (A-3)
339.0	WH 3 5	1.0 B	65	CLAY: Gray (A-7)
-45				Interbedded with of brown, clayey silt
-50	2 3 3	0.4 B	33	Becomes brown and interbedded with brown, silty clay
-55	3 5 4	1.2 B	32	Interbedded with of brown, clayey silt
-60	2 4 7	0.6 B	40	Interbedded with brown, clayey silt and gray, fine to medium sand
321.0				CLAY: Gray (A-7) *(continued)*
				SANDY CLAY: Brown (A-6)
318.5	3 2 3	0.5 B	24	CLAY: Brown (A-7)
-65				
-70	3 3 3	1.1 B	29	
311.0				SAND: Gray, fine, some clay and with clay and sandy clay deposits (A-2)
-75	5 6 9	-		
306.0				CLAY: Brown (A-7)
303.8	13 14 13	3.8 P	25	
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 7/13,14/2009

ROUTE FAP 331 **DESCRIPTION** Structure Replacement crossing Big Muddy River **LOGGED BY** SCI

SECTION 12-2B-2 **LOCATION** East of Murphysboro; SW 1/4, **SEC.** 3, **TWP.** 9S, **RNG.** 2W

COUNTY Jackson **DRILLING METHOD** CME 750 w/HSA **HAMMER TYPE** Automatic

STRUCT. NO. 039-0013
Station 340+71.00

BORING NO. B-104
Station 343+61
Offset 14 ft Rt EB
Ground Surface Elev. 383.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 343.0 ft ▼
Upon Completion - ft
After - Hrs. - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND: Bluish gray, greenish gray, and gray, fine to coarse, trace weathered shale fragments and gravel (A-1) *(continued)*	301.0			
SAND: Greenish gray and gray, fine to medium, trace fine gravel (A-3)		11 17 16	-	
	-85			
Becomes brown	293.8	13 12 12	-	25
CLAY: Brown, with trace limestone fragments (A-7)	-90			
	291.5			
COAL		50/1.5" 50/1"	-	37
	-95			
		50/2" 50/0.5"	-	24
	285.0			
CLAYEY SHALE: Grayish brown	284.0	50/5" 50/1.5"	-	13
Boring terminated at 99.0 ft.	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

LEGEND KEY:

APPROXIMATE BORING LOCATION

gonzalez

ILLINOIS DEPARTMENT OF TRANSPORTATION
PTB 199-036, LOCATION #8, W.O.#5
JACKSON COUNTY, IL

PROJECT NO. 21-123

IL 13 EB OVER BIG MUDDY RIVER
SN 039-0075 (EX)
BORING LOCATION MAP

FIGURE 1

gonzalez COMPANIES, LLC

SOIL BORING LOG

Page 1 of 2

Date 06/01/22

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.76530019, **Longitude** -89.32361362

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-1
Station 342+15
Offset 36.0 ft LT
Ground Surface Elev. 351.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 307.7 ft ▼
Upon Completion ft
After 1 **Hrs.** 351.7 ft ▽

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	4			Loose, Gray, Dry, GRAVEL, with brown clay (FILL)
349.7	3	0.8	31	
	2	B		Medium Stiff, Gray, Moist, SILTY CLAY
348.7				
	2			Soft, Gray, Moist, CLAY, with iron stainig
-5	2	0.7	30	
	2	B		
346.2				
	0			Very Soft, Brown to Gray, Moist, SILTY LOAM
	1		25	
	1			
	0			
	0	0.2	29	
-10	1	B		
	0			A-6(10) LL=32 PL=21 PI=11 13%Sand, 67%Silt, 20%Clay
	0	0.2	31	
	1	B		
	0			
	0	0.1	30	
-15	1	B		
	0			
	0	0.2	30	
	1	B		
	0			
	1	0.3	29	
-20	1	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	0			Very Soft, Brown to Gray, Moist, SILTY LOAM *(continued)*
	1	0.5	28	
	1	B		
	0			A-4(9) LL=32 PL=22 PI=9 8%Sand, 73%Silt, 19%Clay
	1	0.4	29	
-25	1	B		
	0			
	1	0.3	28	
	1	B		
	0			
	1	0.4	28	
-30	2	B		
	0			
	1	0.5	28	
	2	B		
318.7				
	1			Soft to Medium Stiff, Gray, Moist, CLAY
	1	0.7	27	
-35	2	B		
	1			
	2	0.8	26	
	2	B		
	1			
	3	1.4	23	
-40	4	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 06/01/22

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.76530019, **Longitude** -89.32361362

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-1
Station 342+15
Offset 36.0 ft LT
Ground Surface Elev. 351.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 307.7 ft
Upon Completion ft
After 1 **Hrs.** 351.7 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Soft to Medium Stiff, Gray, Moist, CLAY *(continued)*
307.8 ▼	1			
	1	1.0	33	Medium Dense, Brown, Wet, Fine to Coarse, SAND; interbedded with Red and Brown CLAY
-45	1	B		
	3			
	4		33	
-50	6			
	6			
	4		30	
-55	10			
	4			
	2			
-60	8			
				Medium Dense, Brown, Wet, Fine to Coarse, SAND; interbedded with Red and Brown CLAY *(continued)*
288.2				
287.8	100/5"			Black, COAL, Dry
				Boring terminated at 63.92 feet.
-65				
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Page 1 of 3

Date 04/19/22

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.76517042, **Longitude** -89.32328255

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-2
Station 343+00
Offset 28.0 ft RT
Ground Surface Elev. 373.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 340.7 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Soft to Medium Stiff, Brown, Moist, CLAY, with silt (FILL)			
	1		
	2 4	1.3 S	17
	3		
-5	3 4	1.2 B	22
	2		
	2 2		18
	2		
-10	1 2	2.3 P	24
362.6			
Medium Stiff, Brown to Gray, Moist to Dry, SILTY LOAM	2		
	2 3	0.8 B	22
359.7			
Soft, Brown, Moist, CLAY 359.3	2		
Medium Stiff, Greenish Gray with Black Mottling, Moist, CLAY	2 3	0.6 S	24
-15			
357.6			
Medium Stiff, Brown, Moist, SANDY CLAY	1		
	2 3	0.2 S	24
355.1			
Medium Stiff, Brown, Moist, CLAY	2		
353.4			
-20	2 3	0.4 B	22

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Stiff, Gray, Moist, LOAM *(continued)*			
A-7-6(22) LL=42 PL=22 PI=10 1%Sand, 66%Silt, 33%Clay	2		
	2 3	0.8 B	27
	2		
-25	3 3	0.3 P	28
	1		
	2 2	0.6 B	27
	1		
-30	2 2	0.5 B	27
342.6			
Medium Stiff, Gray, Wet, CLAY, some iron staining, some silt	2		
▼	2 3	1.8 B	31
339.3	3		
Loose, Gray, Wet, Medium to Coarse, SAND 338.5	4 4	0.9 S	54
-35			
Medium Stiff, Gray, Moist, CLAY 337.4			
Medium Dense, Gray, Wet, Fine to Medium, SAND	8		
335.6	4 6		
Medium Stiff to Stiff, Gray, Moist, SILT to SILT LOAM	2		
-40	2 3	0.6 B	31

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Page 2 of 3

Date 04/19/22

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.76517042, **Longitude** -89.32328255

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-2
Station 343+00
Offset 28.0 ft RT
Ground Surface Elev. 373.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 340.7 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Stiff to Stiff, Gray, Moist, SILT to SILT LOAM *(continued)*			
	3		
-45	3 3	0.6 B	31
	3		
-50	5 5	0.5 B	25
321.1			
Medium Stiff, Gray, Moist, SILTY CLAY			
	2		
A-6(17) LL=36 PL=19 PI=17 1%Sand, 65%Silt, 34%Clay	3 3	0.5 B	27
-55			
	4		
314.1			
Medium Stiff, Reddish Brown, Moist, CLAY	3 4	0.5 B	32
313.1 -60			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Stiff, Reddish Brown, Moist, CLAY, interbedded with Gray, Fine to Coarse Sand layers			
	3		
-65	3 4	0.5 B	27
	0		
-70	4 9	1.1 B	30
	5		
298.5			
-75	12 15	1.0 B	47
Medium Dense, Gray, Wet, Fine to Coarse, SAND			
	12		
-80	12 16		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 04/19/22

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.76517042, **Longitude** -89.32328255

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-2
Station 343+00
Offset 28.0 ft RT
Ground Surface Elev. 373.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 340.7 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Dense, Gray, Wet, Fine to Coarse, SAND *(continued)*				
	289.6			
Black, COAL, Dry	289.4	100/3"		10
Boring terminated at 83.75 feet.				
	-85			
	-90			
	-95			
	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 07/12/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.7655815, **Longitude** -89.3231474

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-3
Station 341+50
Offset 107.0 ft RT
Ground Surface Elev. 353.9 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 305.4 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	3			Loose, Gray, Dry, GRAVEL, With Brown Clay (FILL)
351.9	1 2	4.5 P	23	
				Soft, Gray, Dry, SILTY CLAY LOAM
350.9				
	3			Medium Stiff, Gray, Moist, SILTY CLAY
	2 2	0.8 B	28	
-5				
348.4				
	2			Soft, Gray, Moist, SILTY LOAM, Some Sand, Trace Organics, Iron Staining
	1 2	0.6 B	28	
	1			A-6(13) LL=35 PL=21 PI=14 7%Sand, 75%Silt, 18%Clay
	1 1	0.2 B	30	
-10				
	1			
	1 1	0.2 B	29	
	0			
	1 1	0.2 B	30	
-15				
	0			
	1 1	0.3 B	31	
	1			
	1 1	0.5 B	28	
-20				
	1			Soft, Gray, Moist, SILTY LOAM, Some Sand, Trace Organics, Iron Staining *(continued)*
	1 2	0.5 B	27	
	0			
-25	2 1	0.6 B	26	
	0			A-6(15) LL=36, PL=20, PI=16 9%Sand, 72%Silt, 19%Clay
	1 1	0.4 B	27	
	1			
-30	1 2	0.5 B	27	
322.9				
	1			Medium Stiff, Gray and Brown, Moist, CLAY
	2 3	0.7 B	25	
	2			
-35	3 4	1.3 B	23	
	1			
	2 3	0.7 B	24	
	1			
-40	2 2	0.7 B	21	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 07/12/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.7655815, **Longitude** -89.3231474

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-3
Station 341+50
Offset 107.0 ft RT
Ground Surface Elev. 353.9 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 305.4 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Stiff, Gray and Brown, Moist, CLAY *(continued)*				
		1		
		2	1.0	32
1/2" Seam of SANDY CLAY LOAM	-45	2	B	
	306.9			
Loose, Brown, Moist, Coarse to Fine, SAND				
	305.2 ▼	2		
Medium Stiff, Brown and Gray, Moist, CLAY LOAM A-6(7) LL=31, PL=16, PI=15 34%Sand, 42%Silt, 24%Clay	-50	3 4	0.5 P	25
	300.1	3		
Soft, Brown, Moist, CLAY	299.5	4	0.6	26
Loose, Brown, Moist, Fine to Coarse SAND	299.1 -55	3	B	
Medium Stiff, Reddish Brown, Moist, CLAY				
Blow-in; washed before SPT	295.1	3		
Loose, Brown, Wet, Coarse to Fine, SAND	294.8 -60	2 2	<0.2 P	34

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Stiff, Light Brown, Moist, CLAY *(continued)*				
	290.9			
Gray, SHALE, Dry				
	289.9			
Black, SHALE, Dry		20		
	-65	60/5"	0.7 P	10
	286.9			
Black, COAL, Dry Blow-in; washed before SPT		60/1"		30
Borehole continued with rock coring.	-70			
Benchmark: CP #10011 at West Abutment of SN 039-0075, EL. 378.28				
	-75			
	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

ROCK CORE LOG

Date 07/12/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.7655815, **Longitude** -89.3231474

COUNTY Jackson **CORING METHOD** Water

STRUCT. NO. 039-0075 (Ex.) **CORING BARREL TYPE & SIZE** NQ
Station

Core Diameter 1.8 in
Top of Rock Elev. ft
Begin Core Elev. 284.90 ft

BORING NO. H-3
Station 341+50
Offset 107.0 ft RT
Ground Surface Elev. 353.9 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Black, COAL, Dry *(continued)*	-70	1	100	8	2	55.4*
283.00						
Dark Gray, SHALE, Dry						
280.20						39.2*
Interbedded SHALE and COAL						
279.40		2	90	58	2.6	
Gray, LIMESTONE, Dry, Slightly Weathered	-75					155.2
						152.1
						105.3
		3	100	90	1.6	585.0
	-80					
						419.7
269.90						550.6
End of Boring	-85					

* Length/Diameter Ratio less than 2

Color pictures of the cores Yes
Cores will be stored for examination until 5 Years after Completion
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	36 (Box 1 of 2)
County:	Jackson	**Date Drilled:**	7/12/2023
Structure:	039-0075	**Boring:**	H-3

Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-3	1	1.9	1.1	69' 7"	1,912	769
H-3	2	1.8	1.0	73' 3"	1,355	545
H-3	3	3.8	2.1	75' 3"	5,359	2,155
H-3	4	3.9	2.2	76' 8"	5,253	2,112
H-3	5	3.8	2.1	78' 3"	3,638	1,463

*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

Core diameter = 1.78 in.

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	36 (Box 2 of 2)
County:	Jackson	**Date Drilled:**	7/12/2023
Structure:	039-0075	**Boring:**	H-3

79'

84'

Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-3	1	3.9	2.2	79' 3"	20,208	8,125
H-3	2	3.8	2.1	81' 3"	14,497	5,829
H-3	3	3.9	2.2	84' 0"	19,018	7,647

*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

Core diameter = 1.78 in.

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 07/13/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**,
Latitude 37.7654591, **Longitude** -89.3224869

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-4
Station 339+65
Offset 40.0 ft RT
Ground Surface Elev. 354.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 323.0 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose, Gray, Dry, GRAVEL, With Brown Clay (FILL)	3			Soft, Gray, Moist, CLAY, With Sand *(continued)*	0		
	2 3			A-6 LL=34 PL=20 PI=14	1 1	0.4 B	28
351.3				331.0			
Medium Stiff, Gray and Brown, Moist, CLAY	3			Soft, Gray, Moist, SILTY CLAY	0		
	3 3	0.5 P	25		0 1	0.3 B	29
-5				-25			
	4			327.7	0		
	3 2	1.9 B	20	Soft to Medium Stiff, Gray and Brown, Moist, SILTY LOAM, Some Brown Fine to Coarse Sand Layers	1 2	0.4 B	27
	3				0		
344.7							
Soft, Gray, Moist, CLAY	2 1	0.9 B	24		2 2	0.7 B	31
-10				-30			
	2			▼	0		
	1 1	0.4 B	32		0 1	0.7 B	28
				321.0			
A-6 LL=36 PL=19 PI=17	0			Soft, Brown and Gray, Moist, CLAY, Some Sand Blow-in; washed before SPT	1		
	1 2	0.5 B	30		1 2	0.7 B	30
-15				-35			
338.5							
Soft, Gray, Moist, CLAY, With Sand	0				2		
	1 1	0.4 B	28	317.0	14 21	0.7 B	33
				Medium Stiff to Stiff, Reddish Brown, Moist, CLAY			
				316.0			
Trace Roots	0			Medium Dense, Gray, Moist, Fine SAND	15		
	0 1	0.4 B	30	315.7 Medium Dense, Gray, Moist, Angular, GRAVEL, With Sand,	12 5		
-20				314.2 -40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

Date 07/13/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.7654591, **Longitude** -89.3224869

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-4
Station 339+65
Offset 40.0 ft RT
Ground Surface Elev. 354.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 323.0 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	Description	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
314.0	Some Clay / Medium Stiff, Gray, Moist, CLAY			
	Medium Stiff, Brown, Moist, CLAY			
	A-6 LL=36 PL=18 PI=18	2		
		2	0.7	30
-45		2	B	
308.0	Stiff, Reddish Brown, Moist, CLAY, Interbedded with Gravel and Fine to Coarse Sand			
		3		
		5	0.5	36
-50		4	B	
	Blow-in; washed before SPT	4		
		5	0.3	28
-55		6	B	
	Blow-in; washed before SPT	3		
294.3		4	0.7	40
-60		10	P	
	Stiff, Light Brown, Moist, CLAY *(continued)*			
291.0	Gray, SHALE, Dry, Weathered			
	Blow-in; washed before SPT	44		
-65		60/3"	>4.5 P	11
286.0	Black, COAL, Dry, Low Density			
285.0	Blow-in; washed before SPT	60		19
-70	Borehole continued with rock coring.			
	Benchmark: CP #10011 at West Abutment of SN 039-0075, EL. 378.28			
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

ROCK CORE LOG

Date 07/13/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.7654591, **Longitude** -89.3224869

COUNTY Jackson **CORING METHOD** Water

STRUCT. NO. 039-0075 (Ex.) **CORING BARREL TYPE & SIZE** NQ
Station

BORING NO. H-4
Station 339+65
Offset 40.0 ft RT
Ground Surface Elev. 354.0 ft

Core Diameter 1.8 in
Top of Rock Elev. ft
Begin Core Elev. 285.00 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Black, COAL, Dry	285.00	1	87	0	3.6	146.4*
Interbedded SHALE and COAL	280.70					
Black, LIMESTONE, Dry	279.25	2	100	72	1.8	137.7
Gray, LIMESTONE, Dry, Highly Weathered to Fresh	278.00					274.8*
		3	97	78	1.8	176.3
						430.3
						724.5
End of Boring	270.00					

* Length/Diameter Ratio less than 2

Color pictures of the cores Yes
Cores will be stored for examination until 5 Years after Completion
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	37 (Box 1 of 2)
County:	Jackson	**Date Drilled:**	7/12/2023
Structure:	039-0075	**Boring:**	H-4

Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-4	1	1.9	1.1	71' 2"	5,059	2,034
H-4	2	3.9	2.2	74' 10"	4,754	1,912
H-4	3	3.4	1.9	77' 2"	9,493	3,817

*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

Core diameter = 1.78 in.

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	37 (Box 2 of 2)
County:	Jackson	**Date Drilled:**	7/12/2023
Structure:	039-0075	**Boring:**	H-4

Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-4	1	3.8	2.1	79' 3"	6,091	2,449
H-4	2	3.9	2.2	80' 8"	14,865	5,977
H-4	3	3.9	2.2	83' 6"	25,023	10,062

*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

Core diameter = 1.78 in.

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 07/03/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.765370, **Longitude** -89.323339

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-5
Station 342+20
Offset 40.0 ft RT
Ground Surface Elev. 352.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 348.5 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	2			Loose, Gray, Dry, GRAVEL, With Brown Silt and Clay (FILL)
	1 2		5	
▼	2			
347.5	1 2	4.5 P	19	
-5				Very Soft to Soft, Brown and Gray, Moist, SILTY LOAM
	2			
	2 2	0.5 B	28	
	0			
-10	0 1	0.1 B	32	
	0			
	0 1	0.2 B	31	
	0			A-6(13) LL=34 PL=20 PI=14 8%Sand, 76%Silt, 16%Clay
-15	0 0	0.2 B	29	
	0			
	1 1	0.5 B	27	
	0			
-20	1 1	<0.2 P	29	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	0			Very Soft to Soft, Brown and Gray, Moist, SILTY LOAM *(continued)*
	1 1	0.3 B	29	
	0			
-25	2 2	0.1 B	28	
	1			
	2 2	0.5 B	28	
324.0				
	1			Medium Stiff, Gray, Moist, SILTY LOAM
-30	2 3	0.2 B	27	
	1			
	3 4	1.0 B	23	A-6(17) LL=39 PL=19 PI=20 13%Sand, 67%Silt, 20%Clay
	1			
317.6				
-35	4 7	0.6 B	25	Medium Stiff, Reddish Brown, Moist, CLAY, Some Sand; Interbedded with Brown, Wet, Fine to Coarse, SAND
	2			
	3 2	0.6 B	29	
	2			
-40	3 4	0.5 B	28	A-7-6(20) LL=41 PL=17 PI=24 14%Sand, 48%Silt, 38%Clay

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

SOIL BORING LOG

Date 07/03/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.765370, **Longitude** -89.323339

COUNTY Jackson **DRILLING METHOD** Hollow Stem Auger (8" O.D., 4.25" I.D.) **HAMMER TYPE** Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)
Station

BORING NO. H-5
Station 342+20
Offset 40.0 ft RT
Ground Surface Elev. 352.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 348.5 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Medium Stiff, Reddish Brown, Moist, CLAY, Some Sand; Interbedded with Brown, Wet, Fine to Coarse, SAND *(continued)*
	2			
-45	3 2	0.2 B	32	
304.0				
	4			Loose, Brown, Moist, Fine, SANDY LOAM
-50	6 4			Blow-in; washed before SPT
	3			Blow-in; washed before SPT
297.5	4		31	
-55	5			Medium Stiff, Brown, CLAY, With Fine Sand
296.5				Medium Dense, Brown, Moist, Fine, SANDY LOAM
	11			
292.4				Medium Dense, Brown, Moist, Fine to Coarse, SAND
292.1 -60	10 14			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Very Stiff, Brown, Dry, CLAY *(continued)*
288.4	60/5"			
-65				Black, COAL, Dry Borehole continued with rock coring. Benchmark: CP #10011 at West Abutment of SN 039-0075, EL. 378.28
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

gonzalez COMPANIES, LLC

ROCK CORE LOG

Date 07/03/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.765370, **Longitude** -89.323339

COUNTY Jackson **CORING METHOD** Water

STRUCT. NO. 039-0075 (Ex.) **CORING BARREL TYPE & SIZE** NQ
Station

Core Diameter 1.8 in
Top of Rock Elev. ft
Begin Core Elev. 288.00 ft

BORING NO. H-5
Station 342+20
Offset 40.0 ft RT
Ground Surface Elev. 352.0 ft

Description	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Black, COAL, Dry *(continued)*	-65	1	100	0	12	
Vesicular Coal at 64.7-65 Feet in depth		2	100	7	4.6	148.4*
						151.3*
	282.50					
Black, SHALE, Dry, Slightly Weathered	-70	3	100	15	2.2	297.0*
	279.20					
Black, COAL, Dry	278.20					
Gray, CLAYSTONE, Dry, Highly Weathered	277.90					
Gray, CLAYSTONE, Dry, Slightly Weathered	277.00	-75				113.9
Gray, CLAYSTONE, Dry, Highly to Moderately Weathered		4	100	54	1.6	
	275.50					71.3
Gray, LIMESTONE, Dry, Slightly Weathered						559.3
						478.0
						353.6
	-80	5	95	95	1.2	414.9

* Length/Diameter Ratio less than 2

Color pictures of the cores Yes
Cores will be stored for examination until 5 Years after Completion
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE LOG

Date 07/03/23

ROUTE FAP 331 **DESCRIPTION** IL 13 EB over Big Muddy River **LOGGED BY** Gonzalez (NRK)

SECTION (12-2)B-1 **LOCATION** IL 13 EB over Big Muddy River, **SEC.** 3, **TWP.** 9S, **RNG.** 2W, 3rd **PM**
Latitude 37.765370, **Longitude** -89.323339

COUNTY Jackson **CORING METHOD** Water

STRUCT. NO. 039-0075 (Ex.) **CORING BARREL TYPE & SIZE** NQ
Station

BORING NO. H-5
Station 342+20
Offset 40.0 ft RT
Ground Surface Elev. 352.0 ft

Core Diameter 1.8 in
Top of Rock Elev. ft
Begin Core Elev. 288.00 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, LIMESTONE, Dry, Slightly Weathered *(continued)*					
267.00 -85					507.7
End of Boring					
-90					
-95					
-100					

Color pictures of the cores Yes
Cores will be stored for examination until 5 Years after Completion
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	35
County:	Jackson	**Date Drilled:**	7/3/2023
Structure:	039-0075	**Boring:**	H-5 Box 1 of 3

Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-5	1	2.8	1.6	67' 0"	5,126	2,061
H-5	1B	2.5	1.4	67' 7"	5,225	2,101
H-5	2	2	1.1	69' 9"	10,259	4,125

*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

Core diameter = 1.78 in.

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	35
County:	Jackson	**Date Drilled:**	7/5/2023
Structure:	039-0075	**Boring:**	H-5 Box 2 of 3

Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-5	3	3.9	2.2	74' 6"	3,935	1,582
H-5	4	3.8	2.1	76' 0"	2,461	990
H-5	5	4	2.2	77' 6"	19,319	7,768
H-5	6	4	2.2	78' 6"	16,510	6,639
H-5	7	4.1	2.3	79' 0"	12,214	4,911

*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

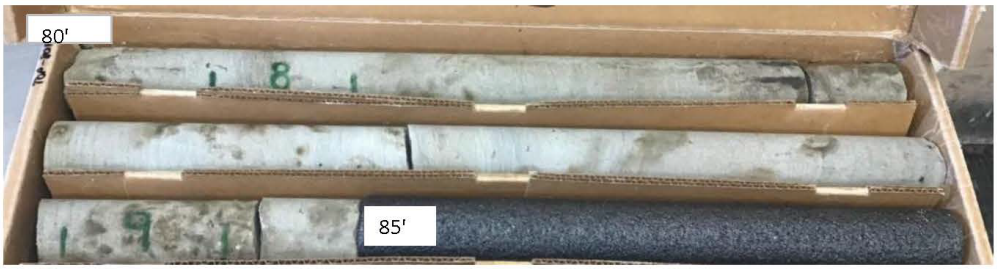
Core diameter = 1.78 in.

Illinois Department of Transportation

District Nine Materials

Unconfined Compressive Strength

Route:	13	**Lab#:**	35
County:	Jackson	**Date Drilled:**	7/5/2023
Structure:	039-0075	**Boring:**	H-5 Box 3 of 3



Boring	Specimen #	Thickness (in.)	L/D Ratio	Depth	Load (lbs)	USC (psi)
H-5	8	4.1	2.3	80' 6"	14,332	5,763
H-5	9	4.1	2.3	85' 4"	17,537	7,051

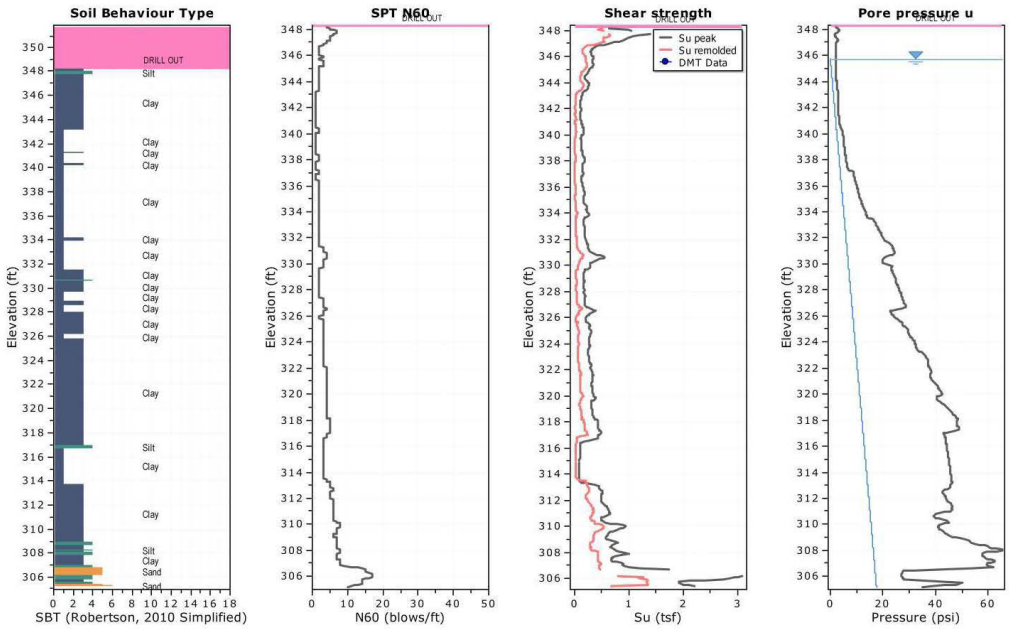
*Desirable specimen length to diameter (L/D) ratios are between 2.0:1 and 2.5:1. The results may differ from results obtained from a test specimen that meets the requirements.

Core diameter = 1.78 in.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, Illinois 60123

Project: G22.081 Big Muddy River
Location: Mursphyboro, Illinois

CPT: CPT-01
Total depth: 46.52 ft, Date: 6/14/2022
Surface Elevation: 351.70 ft
Coords: lat 37.765155° lon -89.323556°
Cone Type: HT-0644
Cone Operator: JI



PROJECT LABOR AGREEMENT

Effective: May 18, 2007 Revised: April 1, 2025

Description. The Illinois Project Labor Agreements Act, 30 ILCS 571, states that the State of Illinois has a compelling interest in awarding public works contracts so as to ensure the highest standards of quality and efficiency at the lowest responsible cost. A project labor agreement (PLA) is a form of pre-hire collective bargaining agreement covering all terms and conditions of employment on a specific project that is intended to support this compelling interest. It has been determined by the Department that a PLA is appropriate for the project that is the subject of this contract. The PLA document, provided below, only applies to the construction site for this contract. It is the policy of the Department on this contract, and all construction projects, to allow all contractors and subcontractors to compete for contracts and subcontracts without regard to whether they are otherwise parties to collective bargaining agreements.

The Department reserves the right to rescind the PLA requirement from this project in the event FHWA disapproves of the inclusion of the PLA terms for this project. The contractor, by bidding, agrees that any recission of the PLA requirement shall not constitute grounds for the withdrawal of its bid and further agrees to remove the PLA requirement from this contract upon notice from the Department should such be necessary at a later date.

Execution of Letter of Assent. A copy of the PLA applicable to this project is included as part of this special provision. As a condition of the award of the contract, the successful bidder and each of its subcontractors shall execute a “Contractor Letter of Assent”, in the form attached to the PLA as Exhibit A. The successful bidder shall submit a Subcontractor’s Contractor Letter of Assent to the Department prior to the subcontractor’s performance of work on the project. Upon request, copies of the applicable collective bargaining agreements will be provided by the appropriate signatory labor organization at the pre-job conference.

Quarterly Reporting. Section 37 of the Illinois Project Labor Agreements Act requires the Department to submit quarterly reports regarding the number of minorities and females employed under PLAs. To assist in this reporting effort, the Contractor shall provide a quarterly workforce participation report for all minority and female employees working under the PLA of this contract. The data shall be reported on Construction Form BC 820, Project Labor Agreement (PLA) Workforce Participation Quarterly Reporting Form available on the Department’s website https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/idot-forms/bc/bc-820.pdf.

The report shall be submitted no later than the 15th of the month following the end of each quarter (i.e., April 15 for the January – March reporting period). The form shall be emailed to DOT.PLA.Reporting@illinois.gov or faxed to (217) 524-4922.

Any costs associated with complying with this provision 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.

Illinois Department of Transportation
PROJECT LABOR AGREEMENT

This Project Labor Agreement ("PLA" or "Agreement") is entered into this_____ day of_

_____

, 2024, by and between the Illinois Department of Transportation ("IDOT" or "Department") in its proprietary capacity, and each relevant Illinois AFL-CIO Building Trades signatory hereto as determined by the Illinois AFL-CIO Statewide Project Labor Agreement Committee on behalf of each of its affiliated members (individually and collectively, the "Unions"). This PLA shall apply to Construction Work (as defined herein) to be performed by IDOT's Prime Contractor and each of its subcontractors of whatever tier ("Subcontractor" or "Subcontractors") on Contract No. (hereinafter, the "Project").

ARTICLE 1 - INTENT AND PURPOSES

1.1 This PLA is entered into in accordance with the Project Labor Agreement Act ("Act", 30 ILCS 571). It is mutually understood and agreed that the terms and conditions of this PLA are intended to promote the public interest in obtaining timely and economical completion of the Project by encouraging productive and efficient construction operations; by establishing a spirit of harmony and cooperation among the parties; and by providing for peaceful and prompt settlement of any and all labor grievances or jurisdictional disputes of any kind without strikes, lockouts, slowdowns, delays, or other disruptions to the prosecution of the work. The parties acknowledge the obligations of the Contractors and Subcontractors to comply with the provisions of the Act. The parties will work with the Contractors and Subcontractors within the parameters of other statutory and regulatory requirements to implement the Act's goals and objectives.

1.2 As a condition of the award of the contract for performance of work on the Project, IDOT's Prime Contractor and each of its Subcontractors shall execute a "Contractor Letter of Assent", in the form attached hereto as Exhibit A, prior to commencing Construction Work on the Project. The Contractor shall submit a Subcontractor's Contractor Letter of Assent to the Department prior to the Subcontractor's performance of Construction Work on the Project. Upon request copies of the applicable collective bargaining agreements will be provided by the appropriate signatory labor organization consistent with this Agreement and at the pre-job conference referenced in Article III, Section 3.1.

1.3 Each Union affiliate and separate local representing workers engaged in Construction Work on the Project in accordance with this PLA are bound to this agreement by the Illinois AFL-CIO Statewide Project Labor Agreement Committee which is the central committee established with full authority to negotiate and sign PLAs with the State on behalf of all respective crafts. Upon their signing the Contractor Letter of Assent, the Prime Contractor, each Subcontractor, and the individual Unions shall thereafter be deemed a party to this PLA. No party signatory to this PLA shall, contract or subcontract, nor permit any other person, firm, company, or entity to contract or subcontract for the performance of Construction Work for the Project to any person, firm, company, or entity that does not agree in writing to become bound for the term of this Project by the terms of this PLA prior to commencing such work and to the applicable area-wide collective bargaining agreement(s) with the Union(s) signatory hereto.

1.4 It is understood that the Prime Contractor(s) and each Subcontractor will be considered and accepted by the Unions as separate employers for the purposes of collective bargaining, and it is further agreed that the employees working under this PLA shall constitute a bargaining unit separate and distinct from all others. The parties hereto also agree that this PLA shall be applicable solely with respect to this Project, and shall have no bearing on the interpretation of any other collective bargaining agreement or as to the recognition of any bargaining unit other than for the specific purposes of this Project.

1.5 In the event of a variance or conflict, whether explicit or implicit, between the terms and conditions of this PLA and the provisions of any other applicable national, area, or local collective bargaining agreement, the terms and conditions of this PLA shall supersede and control. For any work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, the National Agreement of the International Union of Elevator Constructors, and for any instrument calibration work and loop checking performed under the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, the preceding sentence shall apply only with respect to Articles I, II, V, VI, and VII.

1.6 Subject to the provisions of paragraph 1.5 of this Article, it is the parties' intent to respect the provisions of any other collective bargaining agreements that may now or hereafter pertain, whether between the Prime Contractor and one or more of the Unions or between a Subcontractor and one or more of the Unions. Accordingly, except and to the extent of any contrary provision set forth in this PLA, the Prime Contractor and each of its Subcontractors agrees to be bound and abide by the terms of the following in order of precedence: (a) the applicable collective bargaining agreement between the Prime Contractor and one or more of the Unions made signatory hereto; (b) the applicable collective bargaining agreement between a Subcontractor and one or more of the Unions made signatory hereto; or (c) the current applicable area collective bargaining agreement for the relevant Union that is the agreement certified by the Illinois Department of Labor for purposes of establishing the Prevailing Wage applicable to the Project. The Union will provide copies of the applicable collective bargaining agreements pursuant to part (c) of the preceding sentence to the Prime Contractor. Assignments by the Contractors or Subcontractors amongst the trades shall be consistent with area practices; in the event of unresolved disagreements as to the propriety of such assignments, the provisions of Article VI shall apply.

1.7 Subject to the limitations of paragraphs 1.4 to 1.6 of this Article, the terms of each applicable collective bargaining agreement as determined in accordance with paragraph 1.6 are incorporated herein by reference, and the terms of this PLA shall be deemed incorporated into such other applicable collective bargaining agreements only for purposes of their application to the Project.

1.8 To the extent necessary to comply with the requirements of any fringe benefit fund to which the Prime Contractor or Subcontractor is required to contribute under the terms of an applicable collective bargaining agreement pursuant to the preceding paragraph, the Prime Contractor or Subcontractor shall execute all "Participation Agreements" as may be reasonably required by the Union to accomplish such purpose; provided, however, that such Participation Agreements shall, when applicable to the Prime Contractor or Subcontractor solely as a result of this PLA, be amended as reasonably necessary to reflect such fact. Upon written notice in the form of a lien of a Contractor's or Subcontractor's delinquency from any applicable fringe benefit fund, IDOT will withhold from the Contractor's periodic pay request an amount sufficient to extinguish any delinquency obligation of the Contractor or Subcontractor arising out of the Project.

1.9 In the event that the applicable collective bargaining agreement between a Prime Contractor and the Union or between the Subcontractor and the Union expires prior to the completion of this Project, the expired applicable contract's terms will be maintained until a new applicable collective bargaining agreement is ratified. The wages and fringe benefits included in any new applicable collective bargaining agreement will apply on and after the effective date of the newly negotiated collective bargaining agreement, except to the extent wage and fringe benefit retroactivity is specifically agreed upon by the relevant bargaining parties.

ARTICLE II – APPLICABILITY, RECOGNITION, AND COMMITMENTS

2.1 The term Construction Work as used herein shall include all “construction, demolition, rehabilitation, renovation, or repair” work performed by a “laborer or mechanic” at the “site of the work” for the purpose of “building” the specific structures and improvements that constitute the Project. Terms appearing within quotation marks in the preceding sentence shall have the meaning ascribed to them pursuant to 29 CFR Part 5 and Illinois labor laws.

2.2 By executing the Letters of Assent, Prime Contractor and each of its Subcontractors recognizes the Unions signatory to this PLA as the sole and exclusive bargaining representatives for their craft employees employed on the jobsite for this Project. Unions who are signatory to this PLA will have recognition on the Project for their craft.

2.3 The Prime Contractor and each of its Subcontractors retains and shall be permitted to exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this PLA or by the terms and conditions of the applicable collective bargaining agreement.

2.4 Except to the extent contrary to an express provision of the relevant collective bargaining agreement, equipment or materials used in the Project may be pre-assembled or pre- fabricated, and there shall be no refusal by the Union to handle, transport, install, or connect such equipment or materials. Equipment or materials delivered to the job-site will be unloaded and handled promptly without regard to potential jurisdictional disputes; any such disputes shall be handled in accordance with the provisions of this PLA.

2.5 The parties are mutually committed to promoting a safe working environment for all personnel at the job-site. It shall be the responsibility of each employer to which this PLA applies to provide and maintain safe working conditions for its employees, and to comply with all applicable federal, state, and local health and safety laws and regulations.

2.6 The use or furnishing of alcohol or drugs and the conduct of any other illegal activity at the job-site is strictly prohibited. The parties shall take every practical measure consistent with the terms of applicable collective bargaining agreements to ensure that the job-site is free of alcohol and drugs.

2.7 All parties to this PLA agree that they will not discriminate against any employee based on race, creed, religion, color, national origin, union activity, age, gender or sexual orientation and shall comply with all applicable federal, state, and local laws.

2.8 In accordance with the Act and to promote diversity in employment, IDOT will establish, in cooperation with the other parties, the apprenticeship hours which are to be performed by minorities and females on the Project. IDOT shall consider the total hours to be performed by these underrepresented groups, as a percentage of the workforce, and create aspirational goals for each Project, based on the level of underutilization for the service area of the Project (together "Project Employment Objectives"). IDOT shall provide a quarterly report regarding the racial and gender composition of the workforce on the Project.

Persons currently lacking qualifications to enter apprenticeship programs will have the opportunity to obtain skills through basic training programs as have been established by the Department. The parties will endeavor to support such training programs to allow participants to obtain the requisite qualifications for the Project Employment Objectives.

The parties agree that all Contractors and Subcontractors working on the Project shall be encouraged to utilize the maximum number of apprentices as permitted under the terms of the applicable collective bargaining agreements to realize the Project Employment Objectives.

The Unions shall assist the Contractor and each Subcontractor in efforts to satisfy Project Employment Objectives. A Contractor or Subcontractor may request from a Union specific categories of workers necessary to satisfy Project Employment Objectives. The application of this section shall be consistent with all local Union collective bargaining agreements, and the hiring hall rules and regulations established for the hiring of personnel, as well as the apprenticeship standards set forth by each individual Union.

2.9 The parties hereto agree that engineering consultants and materials testing employees, to the extent subject to the terms of this PLA, shall be fully expected to objectively and responsibly perform their duties and obligations owed to the Department without regard to the potential union affiliation of such employees or of other employees on the Project.

2.10 This Agreement shall not apply to IDOT employees or employees of any other governmental entity.

ARTICLE III - ADMINISTRATION OF AGREEMENT

3.1 In order to assure that all parties have a clear understanding of the PLA, and to promote harmony, at the request of the Unions a post-award pre-job conference will be held among the Prime Contractor, all Subcontractors and Union representatives prior to the start of any Construction Work on the Project. No later than the conclusion of such pre-job conference, the parties shall, among other matters, provide to one another contact information for their respective representatives (including name, address, phone number, facsimile number, e-mail). Nothing herein shall be construed to limit the right of the Department to discuss or explain the purpose and intent of this PLA with prospective bidders or other interested parties prior to or following its award of the job.

3.2 Representatives of the Prime Contractor and the Unions shall meet as often as reasonably necessary following award until completion of the Project to assure the effective implementation of this PLA.

3.3 Any notice contemplated under Article VI and VII of this Agreement to a signatory labor organization shall be made in writing to the Local Union with copies to the local union's International Representative.

ARTICLE IV - HOURS OF WORK AND GENERAL CONDITIONS

4.1 The standard work day and work week for Construction Work on the Project shall be consistent with the respective collective bargaining agreements. In the event Project site or other job conditions dictate a change in the established starting time and/or a staggered lunch period for portions of the Project or for specific crafts, the Prime Contractor, relevant Subcontractors and business managers of the specific crafts involved shall confer and mutually agree to such changes as appropriate. If proposed work schedule changes cannot be mutually agreed upon between the parties, the hours fixed at the time of the pre-job meeting shall prevail.

4.2 Shift work may be established and directed by the Prime Contractor or relevant Subcontractor as reasonably necessary or appropriate to fulfill the terms of its contract with the Department. If used, shift hours, rates and conditions shall be as provided in the applicable collective bargaining agreement.

4.3 The parties agree that chronic and/or unexcused absenteeism is undesirable and must be controlled in accordance with procedures established by the applicable collective bargaining agreement. Any employee disciplined for absenteeism in accordance with such procedures shall be suspended from all work on the Project for not less than the maximum period permitted under the applicable collective bargaining agreement.

4.4 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, employment begins and ends at the Project site; employees shall be at their place of work at the starting time; and employees shall remain at their place of work until quitting time.

4.5 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, there shall be no limit on production by workmen, no restrictions on the full use of tools or equipment, and no restrictions on efficient use of manpower or techniques of construction other than as may be required by safety regulations.

4.6 The parties recognize that specialized or unusual equipment may be installed on the Project. In such cases, the Union recognizes the right of the Prime Contractor or Subcontractor to involve the equipment supplier or vendor's personnel in supervising the setting up of the equipment, making modifications and final alignment, and performing similar activities that may be reasonably necessary prior to and during the start-up procedure in order to protect factory warranties. The Prime Contractor or Subcontractor shall notify the Union representatives in advance of any work at the job-site by such vendor personnel in order to promote a harmonious relationship between the equipment vendor's personnel and other Project employees.

4.7 For the purpose of promoting full and effective implementation of this PLA, authorized Union representatives shall have access to the Project job-site during scheduled work hours. Such access shall be conditioned upon adherence to all reasonable visitor and security rules of general applicability that may be established for the Project site at the pre-job conference or from time to time thereafter.

ARTICLE V – GRIEVANCE PROCEDURES FOR DISPUTES ARISING UNDER A PARTICULAR COLLECTIVE BARGAINING AGREEMENT

5.1 In the event a dispute arises under a particular collective bargaining agreement specifically not including jurisdictional disputes referenced in Article VI below, said dispute shall be resolved by the Grievance/Arbitration procedure of the applicable collective bargaining agreement. The resulting determination from this process shall be final and binding on all parties bound to its process.

5.2 Employers covered under this Agreement shall have the right to discharge or discipline any employee who violates the provisions of this Agreement. Such discharge or discipline by a contractor or subcontractor shall be subject to Grievance/Arbitration procedure of the applicable collective bargaining agreement only as to the fact of such violation of this agreement. If such fact is established, the penalty imposed shall not be disturbed. Work at the Project site shall continue without disruption or hindrance of any kind as a result of a Grievance/Arbitration procedure under this Article.

5.3 In the event there is a deadlock in the foregoing procedure, the parties agree that the matter shall be submitted to arbitration for the selection and decision of an Arbitrator governed under paragraph 6.8.

ARTICLE VI –DISPUTES: GENERAL PRINCIPLES

6.1 This Agreement is entered into to prevent strikes, lost time, lockouts and to facilitate the peaceful adjustment of jurisdictional disputes in the building and construction industry and to prevent waste and unnecessary avoidable delays and expense, and for the further purpose of at all times securing for the employer sufficient skilled workers.

6.2 A panel of Permanent Arbitrators are attached as addendum (A) to this agreement. By mutual agreement between IDOT and the Unions, the parties can open this section of the agreement as needed to make changes to the list of permanent arbitrators.

The arbitrator is not authorized to award back pay or any other damages for a miss assignment of work. Nor may any party bring an independent action for back pay or any other damages, based upon a decision of an arbitrator.

6.3 The PLA Jurisdictional Dispute Resolution Process ("Process") sets forth the procedures below to resolve jurisdictional disputes between and among Contractors, Subcontractors, and Unions engaged in the building and construction industry. Further, the Process will be followed for any grievance or dispute arising out of the interpretation or application of this PLA by the parties except for the prohibition on attorneys contained in 6.11. All decisions made through the Process are final and binding upon all parties.

DISPUTE PROCESS

6.4 Administrative functions under the Process shall be performed through the offices of the President and/or Secretary-Treasurer of the Illinois State Federation of Labor, or their designated representative, called the Administrator. In no event shall any officer, employee, agent, attorney, or other representative of the Illinois Federation of Labor, AFL- CIO be subject to any subpoena to appear or testify at any jurisdictional dispute hearing.

6.5 There shall be no abandonment of work during any case participating in this Process or in violation of the arbitration decision. All parties to this Process release the Illinois State Federation of Labor ("Federation") from any liability arising from its action or inaction and covenant not to sue the Federation, nor its officers, employees, agents or attorneys.

6.6 In the event of a dispute relating to trade or work jurisdiction, all parties, including the employers, Contractors or Subcontractors, agree that a final and binding resolution of the

dispute shall be resolved as follows:

(a) Representatives of the affected trades and the Contractor or Subcontractor shall meet on the job site within two (2) business days after receiving written notice in an effort to resolve the dispute. (In the event there is a dispute between local unions affiliated with the same International Union, the decision of the General President, or his/her designee, as the internal jurisdictional authority of that International Union, shall constitute a final and binding decision and determination as to the jurisdiction of work.)

(b) If no settlement is achieved subsequent to the preceding Paragraph, the matter shall be referred to the local area Building & Construction Trades Council, which shall meet with the affected trades within two (2) business days subsequent to receiving written notice. In the event the parties do not wish to avail themselves of the local Building & Construction Trades Council, the parties may elect to invoke the services of their respective International Representatives with no extension of the time limitations. An agreement reached at this Step shall be final and binding upon all parties.

(c) If no settlement agreement is reached during the proceedings contemplated by Paragraphs “a” or “b” above, the matter shall be immediately referred to the Illinois Jurisdictional Dispute Process for final and binding resolution of said dispute. Said referral submission shall be in writing and served upon the Illinois State Federation of Labor, or the Administrator, pursuant to paragraph 6.4 of this agreement. The Administrator shall, within three (3) days, provide for the selection of an available Arbitrator to hear said dispute within this time period. Upon good cause shown and determined by the Administrator, an additional three (3) day extension for said hearing shall be granted at the sole discretion of the Administrator. Only upon mutual agreement of all parties may the Administrator extend the hearing for a period in excess of the time frames contemplated under this Paragraph. Business days are defined as Monday through Friday, excluding contract holidays.

6.7 The primary concern of the Process shall be the adjustment of jurisdictional disputes arising out of the Project. A sufficient number of Arbitrators shall be selected from list of approved Arbitrators as referenced Sec. 6.2 and shall be assigned per Sec. 6.8. Decisions shall be only for the Project and shall become effective immediately upon issuance and complied with by all parties. The authority of the Arbitrator shall be restricted and limited specifically to the terms and provisions of Article VI and generally to this Agreement as a whole.

6.8 Arbitrator chosen shall be randomly selected based on the list of Arbitrators in Sec. 6.2 and geographical location of the jurisdictional dispute and upon his/her availability, and ability to conduct a Hearing within two (2) business days of said notice. The Arbitrator may issue a "bench" decision immediately following the Hearing or he/she may elect to only issue a written decision, said decision must be issued within two (2) business days subsequent to the completion of the Hearing. Copies of all notices, pleadings, supporting memoranda, decisions, etc. shall be provided to all disputing parties and the Illinois State Federation of Labor.

Any written decision shall be in accordance with this Process and shall be final and binding upon all parties to the dispute and may be a "short form" decision. Fees and costs of the arbitrator shall be divided evenly between the contesting parties except that any party wishing a full opinion and decision beyond the short form decision shall bear the reasonable fees and costs of such full opinion. The decision of the Arbitrator shall be final and binding upon the parties hereto, their members, and affiliates.

In cases of jurisdictional disputes or other disputes between a signatory labor organization and another labor organization, both of which is an affiliate or member of the same International Union, the matter or dispute shall be settled in the manner set forth by their International Constitution and/or as determined by the International Union's General President whose decision shall be final and binding upon all parties. In no event shall there be an abandonment of work.

6.9 In rendering a decision, the Arbitrator shall determine:

(a) First, whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between National or International Unions to the dispute or agreements between local unions involved in the dispute, governs;

(b) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider the established trade practice in the industry and prevailing practice in the locality. Where there is a previous decision of record governing the case, the Arbitrator shall give equal weight to such decision of record, unless the prevailing practice in the locality in the past ten years favors one craft. In that case, the Arbitrator shall base his decision on the prevailing practice in the locality. Except, that if the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wages or by the use of vertical agreements, the Arbitrator shall rely on the decision of record and established trade practice in the industry rather than the prevailing practice in the locality; and,

(c) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interests of the consumer or the past practices of the employer shall not be ignored.

(d) The arbitrator is not authorized to award back pay or any other damages for a mis-assignment of work. Nor may any party bring an independent action for back pay or any other damages, based upon a decision of an arbitrator.

6.10 The Arbitrator shall set forth the basis for his/her decision and shall explain his/her findings regarding the applicability of the above criteria. If lower ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the Project. Agreements of Record, for other PLA projects, are applicable only to those parties signatory to such agreements. Decisions of Record are those that were either attested to by the former Impartial Jurisdictional Disputes Board or adopted by the National Arbitration Panel.

6.11 All interested parties, as determined by the Arbitrator, shall be entitled to make presentations to the Arbitrator. Any interested labor organization affiliated to the PLA Committee and party present at the Hearing, whether making a presentation or not, by such presence shall be deemed to accept the jurisdiction of the Arbitrator and to agree to be bound by its decision. In addition to the representative of the local labor organization, a representative of the labor organization's International Union may appear on behalf of the parties. Each party is responsible for arranging for its witnesses. In the event an Arbitrator's subpoena is required, the party requiring said subpoena shall prepare the subpoena for the Arbitrator to execute. Service of the subpoena upon any witness shall be the responsibility of the issuing party.

Attorneys shall not be permitted to attend or participate in any portion of a Hearing.

The parties are encouraged to determine, prior to Hearing, documentary evidence which may be presented to the Arbitrator on a joint basis.

6.12 The Order of Presentation in all Hearings before an Arbitrator shall be

I. Identification and Stipulation of the Parties
II. Unions(s) claiming the disputed work presents its case
III. Union(s) assigned the disputed work presents its case
IV. Employer assigning the disputed work presents its case
V. Evidence from other interested parties (i.e., general contractor, project manager, owner)
VI. Rebuttal by union(s) claiming the disputed work
VII. Additional submissions permitted and requested by Arbitrator VIII. Closing arguments by the parties

6.13 All parties bound to the provisions of this Process hereby release the Illinois State Federation of Labor and IDOT, their respective officers, agents, employees or designated representatives, specifically including any Arbitrator participating in said Process, from any and all liability or claim, of whatsoever nature, and specifically incorporating the protections provided in the Illinois Arbitration Act, as amended from time to time.

6.14 The Process, as an arbitration panel, nor its Administrator, shall have any authority to undertake any action to enforce its decision(s). Rather, it shall be the responsibility of the prevailing party to seek appropriate enforcement of a decision, including findings, orders or awards of the Arbitrator or Administrator determining non-compliance with a prior award or decision.

6.15 If at any time there is a question as to the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process, the primary responsibility for any determination of the arbitrability of a dispute and the jurisdiction of the Arbitrator shall be borne by the party requesting the Arbitrator to hear the underlying jurisdictional dispute. The affected party or parties may proceed before the Arbitrator even in the absence or one or more stipulated parties with the issue of jurisdiction as an additional item to be decided by the Arbitrator. The Administrator may participate in proceedings seeking a declaration or determination that the underlying dispute is subject to the jurisdiction and process of the Illinois Jurisdictional Dispute Resolution Process. In any such proceedings, the non-prevailing party and/or the party challenging the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process shall bear all the costs, expenses and attorneys' fees incurred by the Illinois Jurisdictional Dispute Resolution Process and/or its Administrator in establishing its jurisdiction.

ARTICLE VII - WORK STOPPAGES AND LOCKOUTS

7.1 During the term of this PLA, no Union or any of its members, officers, stewards, employees, agents or representatives shall instigate, support, sanction, maintain, or participate in any strike, picketing, walkout, work stoppage, slow down or other activity that interferes with the routine and timely prosecution of work at the Project site or at any other contractor's or supplier's facility that is necessary to performance of work at the Project site. Hand billing at the Project site during the designated lunch period and before commencement or following conclusion of the established standard workday shall not, in itself, be deemed an activity that interferes with the routine and timely prosecution of work on the Project.

7.2 Should any activity prohibited by paragraph 7.1 of this Article occur, the Union shall undertake all steps reasonably necessary to promptly end such prohibited activities.

7.2.A No Union complying with its obligations under this Article shall be liable for acts of employees for which it has no responsibility or for the unauthorized acts of employees it represents. Any employee who participates or encourages any activity prohibited by paragraph 7.1 shall be immediately suspended from all work on the Project for a period equal to the greater of (a) 60 days; or (b) the maximum disciplinary period allowed under the applicable collective bargaining agreement for engaging in comparable unauthorized or prohibited activity.

7.2.B Neither the PLA Committee nor its affiliates shall be liable for acts of employees for which it has no responsibility. The principal officer or officers of the PLA Committee will immediately instruct, order and use the best efforts of his office to cause the affiliated union or unions to cease any violations of this Article. The PLA Committee in its compliance with this obligation shall not liable for acts of its affiliates. The principal officer or officers of any involved affiliate will immediately instruct, order or use the best effort of his office to cause the employees the union represents to cease any violations of this Article. A union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Contractor to exercise its rights in any instance shall not be deemed a waiver of its rights in any other instance.

During the term of this PLA, the Prime Contractor and its Subcontractors shall not engage in any lockout at the Project site of employees covered by this Agreement.

7.3 Upon notification of violations of this Article, the principal officer or officers of the local area Building and Construction Trades Council, and the Illinois AFL-CIO Statewide Project Labor Agreement Committee as appropriate, will immediately instruct, order and use their best efforts to cause the affiliated union or unions to cease any violations of this Article. A Trades Council and the Committee otherwise in compliance with the obligations under this paragraph shall not be liable for unauthorized acts of its affiliates.

7.4 In the event that activities in violation of this Article are not immediately halted through the efforts of the parties, any aggrieved party may invoke the special arbitration provisions set forth in paragraph 7.5 of this Article.

7.5 Upon written notice to the other involved parties by the most expeditious means available, any aggrieved party may institute the following special arbitration procedure when a breach of this Article is alleged:

7.5.A The party invoking this procedure shall notify the individual designated as the Permanent Arbitrator pursuant to paragraph 6.8 of the nature of the alleged violation; such notice shall be by the most expeditious means possible. The initiating party may also furnish such additional factual information as may be reasonably necessary for the Permanent Arbitrator to understand the relevant circumstances. Copies of any written materials provided to the arbitrator shall also be contemporaneously provided by the most expeditious means possible to the party alleged to be in violation and to all other involved parties.

7.5.B Upon receipt of said notice the Permanent Arbitrator shall set and hold a hearing within twenty-four (24) hours if it is contended the violation is ongoing, but not before twenty-four (24) hours after the written notice to all parties involved as required above.

7.5.C The Permanent Arbitrator shall notify the parties by facsimile or any other effective written means, of the place and time chosen by the Permanent Arbitrator for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Permanent Arbitrator.

7.5.D The sole issue at the hearing shall be whether a violation of this Article has, in fact, occurred. An Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Permanent Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.

7.5.E Such Award may be enforced by any court of competent jurisdiction upon the filing of the Award and such other relevant documents as may be required. Facsimile or other hardcopy written notice of the filing of such enforcement proceedings shall be given to the other relevant parties. In a proceeding to obtain a temporary order enforcing the Permanent Arbitrator's Award as issued under this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Permanent Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.

7.6 Individuals found to have violated the provisions of this Article are subject to immediate termination. In addition, IDOT reserves the right to terminate this PLA as to any party found to have violated the provisions of this Article.

7.7 Any rights created by statue or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.

7.8 The fees and expenses of the Permanent Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE VIII – TERMS OF AGREEMENT

8.1 If any Article or provision of this Agreement shall be declared invalid, inoperative or unenforceable by operation of law or by any of the above mentioned tribunals of competent jurisdiction, the remainder of this Agreement or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.

8.2 This Agreement shall be in full force as of and from the date of the Notice of Award until the Project contract is closed.

8.3 This PLA may not be changed or modified except by the subsequent written agreement of the parties. All parties represent that they have the full legal authority to enter into this PLA. This PLA may be executed by the parties in one or more counterparts.

8.4 Any liability arising out of this PLA shall be several and not joint. IDOT shall not be liable to any person or other party for any violation of this PLA by any other party, and no Contractor or Union shall be liable for any violation of this PLA by any other Contractor or Union.

8.5 The failure or refusal of a party to exercise its rights hereunder in one or more instances shall not be deemed a waiver of any such rights in respect of a separate instance of the same or similar nature.

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Addendum A

IDOT Slate of Permanent Arbitrators

1. Bruce Feldacker
2. Thomas F. Gibbons
3. Edward J. Harrick
4. Brent L. Motchan
5. Robert Perkovich
6. Byron Yaffee
7. Glenn A. Zipp

Exhibit A - Contractor Letter of Assent

(Date)

To All Parties:

In accordance with the terms and conditions of the contract for Construction Work on [Contract No.], this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Transportation in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

(Authorized Company Officer)

(Company)

STORM WATER POLLUTION PREVENTION PLAN

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	Marked Route	Section Number
FAP 331	IL 13	(12-1)SLP-1
Project Number	**County**	**Contract Number**
NHPP-6SW7(287)	Jackson	78985

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

Kensil A. Garnett 3/19/25

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 at the bridges SN 039-0075 EB and SN 039-0076 WB carrying IL Route 13 over the Big Muddy River, east of Murphysboro in Jackson County. It is approximately 37°45'56" N, 89°19'22" W in Section 03 and 04 of T9S R2W.

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

This project involves installation of large diameter pipe piles with select pilings to include displacement monitoring for lateral movements. Project includes construction of a set of median crossovers for the westbound lanes of IL Route 13. Also included is traffic control, earthwork, temporary drainage, jointed PCC pavement, subbase and seeding.

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).

Installation of large diameter pipe piles

4. The total area of the construction site is estimated to be 1.21 acres.

5. The total area of the site estimated to be disturbed by excavation, grading or other activities is 1.05 acres.

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

C = 0.30

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

The proposed ditches and area disturbed beneath the bridges may be potentially erosive until grass has taken root. Erosion control measures will be implemented to limit erosion on these areas, and fertilizer and mulch will be employed to promote grass growth.

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.

Six soil types are located within the project area of the construction limits. These are:

Okaw silt loam (84A) - 0 to 2 percent slopes

Orthents (801B) - silty, undulating

Belknap silt loam (3382A) - 0 to 2 percent slopes, frequently flooded

Colp silt loam (7122B2) - 2 to 5 percent slopes, eroded, rarely flooded

Colp silty clay loam (7122D3) - 10 to 18 percent slopes, severely eroded, rarely flooded

Hurst silt loam (7338B2) - 2 to 5 percent slopes, eroded, rarely flooded

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

All areas to be affected are on IL right of way (IDOT District 9).

Note: 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.

Big Muddy River

2. Are wetlands present in the project area? ☒ Yes ☐ No

If yes, describe the areal extent of the wetland acreage at the site.

The wetland area on site resides on the west side of the bridge, and is approximately 0.68 acres.

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-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 ☒ No; and/or

(ii) Additional erosion and sediment controls within that area has been provided

☒ Yes ☐ No; and Describe: _____

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)
- ☒ Nitrogen
- ☒ Phosphorus, and/or
- ☒ Potassium

☐ Herbicide

☒ Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)

☒ Waste water for concrete washout station

☐ Coal tar Pitch Emulsion

☒ Other (Specify) Agricultural Ground Limestone

☐ 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

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.

Note: 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
- ☒ Erosion Control Blanket
- ☐ Turf Reinforcement Mat
- ☐ Sodding
- ☐ Geotextile fabric
- ☐ Preservation of existing vegetation
- ☐ Temporary Turf Cover Mixture (Class 7)
- ☒ Permanent seeding (Class 1-6)
- ☒ Other (Specify) Temporary Erosion Control Seeding
- ☐ 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 Excelsior
- ☐ Silt Filter Fence

- ☐ Above grade inlet filters (fitted)
- ☐ Above grade inlet filters (non-fitted)
- ☐ Inlet filters
- ☐ Urethane foam/geotextiles
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

3. Structural Practices:

Provide below is a description of structural practices that will be implemented:

- ☐ Aggregate Ditch
- ☐ Articulated Block Revetment Mat
- ☐ Barrier (Permanent)
- ☐ Concrete Revetment Mats
- ☐ Dewatering Filtering
- ☐ Gabions
- ☒ In-Stream or Wetland Work
- ☐ Level Spreaders
- ☐ Paved Ditch
- ☐ Permanent Check Dams
- ☐ Precast Block Revetment Mat
- ☐ Rock Outlet Protection
- ☐ Stabilized Construction Exits
- ☐ Stabilized Trench Flow
- ☐ Sediment Basin
- ☐ Retaining Walls
- ☐ Riprap
- ☐ Strom Drain Inlet Protection
- ☐ Slope Walls
- ☐ Sediment Trap
- ☒ Other (Specify) Rock Fill
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

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.

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.

N/A

Part V. Other Conditions

1. Dewatering

Will dewatering be required for this project? ☐ Yes ☒ No

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

Storm water drainage will be provided by proposed ditches and storm sewer. Existing drainage patterns will be maintained. Permanent seeding and mulching shall be applied to all disturbed areas.

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)

N/A

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

N/A

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

All erosion control devices will be maintained in accordance with Article 280.05 of the Standard Specification for Road and Bridge Construction in Illinois.

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

becoming accessible.

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 7 days 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.

Illinois Department of Transportation

Contractor Certification Statement

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 Part IX. Contractor Required Submittals of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

Route	Marked Route	Section Number
FAP 331	IL 13	(12-1)SLP-1
Project Number	**County**	**Contract Number**
NHPP-6SW7(287)	Jackson	78985

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
☐ 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

BDE 2342A (Rev. 02/21/25)

404 PERMIT

Illinois Department of Transportation

404 Permit

Route	FAP 331	Marked	IL 13
Section	(12-1)SLP-1	Stream Name	Big Muddy River
County	Jackson	Location	East of IL 127 in Murphysboro

The Division of Highways, District 9, has determined that the plans as prepared for letting are authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 14, Linear Transportation Projects, as described in the December 21, 2021 Federal Register, Reissuance and Modification of Nationwide Permits; Notice (86 FR 73574), Appendix A (B)(14). This NWP verification is valid until March 14, 2026. Under the provisions of the authorization, the following attachments must be complied with:

1. Terms for Nationwide Permit No. 14.
2. Nationwide Permit General Conditions.
3. Illinois Regional Conditions
4. Illinois EPA Water Quality Certification Regional Conditions.

You are reminded that the **permit** determination is based upon plans as prepared for letting. Variation from these plans may result in the revocation of the permit.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. LOUIS DISTRICT
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833

February 3, 2025

Regulatory Division
File Number: MVS-2025-56

Carrie Nelsen
Illinois Department of Transportation, Region 5, District 9
P.O. Box 100
Carbondale, Illinois 62903-0100

Dear Ms. Nelsen:

We have reviewed the application dated January 10, 2025, regarding the project known as *IL RT 13 over Big Muddy Slope Mitigation.* The project will consist of the placement of 58 pilings totaling 0.026 acres of impacts. In addition, 0.343 acres will be temporarily impacted.

The approximate geographic coordinates of the site are 37.76538° North, -89.322565° East. The Big Muddy River flows into the Mississippi River.

The Corps of Engineers has determined that this activity is authorized under Section 404 of the Clean Water Act by an existing Department of the Army nationwide permit for *Linear Transportation Projects (14)*, attached. This verification is valid until March 14, 2026, unless the District Engineer modifies, suspends, or revokes the nationwide permit authorizations in accordance with 33 CFR 330.5(d). If you commence, or are under contract to commence, this activity before the nationwide permits expire, you will have 12 months after the date the nationwide permits expire or are modified, suspended, or revoked, to complete the activity under the present terms and conditions of these nationwide permits. Enclosed is a copy of the Nationwide Permit and conditions and management practices with which you must comply. **Furthermore, the District Engineer has conditioned this verification to include the following Special Conditions:**

Special Condition 1: Temporary construction access, structures or fills within jurisdictional waters shall be removed once the activity is complete and the site shall be restored to pre-project conditions including elevations, soil substrate, and vegetation.

In accordance with General Condition number 30 of the Nationwide Permit, a compliance certification (Attachment A of this package) must be completed within 30 days of project completion, or the permit issuance may be revoked and considered null and void.

Regulatory Division (File No. MVS-2025-56)

The Illinois Environmental Protection Agency Division of Water Pollution Control (IEPA/WPC) has conditionally issued general Section 401 Water Quality Certification for this nationwide permit, subject to the general and special conditions (see enclosure). These conditions are part of the Corps permit. If you have any questions regarding the water quality certification conditions, you may contact Darin LeCrone, with IEPA, at 217-782-0610.

This determination is applicable only to the permit program administered by the Corps of Engineers. It does not eliminate the need to obtain other federal, state or local approvals before beginning work. In addition to the Corps requirements, **please coordinate with IDNR-Office of Water Resources for any activity within the floodplain.** This permit verification does not convey property rights, nor authorize any injury to property or invasion of other rights.

You are reminded that the permit is based on submitted plans. Variations from these plans shall constitute a violation of Federal law and may result in the revocation of the permit. If this nationwide permit is modified, reissued, or revoked during this period, the provisions described at 33 CFR 330.6(b) will apply.

If you have any questions please contact Henry Heyer at (314) 331-8251 or Henry.R.Heyer@usace.amy.mil. Please refer to file number **MVS-2025-56**. The St. Louis District Regulatory Division is committed to providing quality and timely service to our customers.

In an effort to improve customer service, please take a moment to go to our Customer Service Survey found on our web site at https://regulatory.ops.usace.army.mil/customer-service-survey/.

Sincerely,

Tyson Zobrist
Illinois Branch Chief
Regulatory Division

Enclosures
Nationwide Permit 14 Conditions
Illinois 401 Water Quality Certification
Illinois Regional General Conditions

Copy Furnished
Miler, IDNR-OWR
LeCrone, IEPA

Regulatory Division (File No. MVS-2025-56)

ATTACHMENT A

COMPLETED WORK CERTIFICATION

Date of Issuance: February 3, 2025

File Number: MVS-2025-56

Name of Permittee: Illinois Department of Transportation, Region 5, District 9; c/o Ms. Carrie Nelsen

Name of Project: IL RT 13 over Big Muddy Slope Mitigation

Project Location: 37.76538, -89.322565

River Basin/County/State: Big Muddy/Jackson/Illinois

Project Manager: H. Heyer

Upon completion of this activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Attn: Regulatory Division (RD)
1222 Spruce Street
St. Louis, Missouri 63103-2833

(Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification or revocation.)

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee **Date**

2022 Nationwide Permit Summary

U.S Army Corps
Of Engineers

Issued: February 25, 2022 **Expires: March 14, 2026**

No. 14. Linear Transportation Projects

(NWP Final Notice, 86 FR, 73574)

Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2 -acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3 -acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) The loss of waters of the United States exceeds 1/10 acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404).

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

C. Nationwide Permit General Conditions

(NWP Final Notice, 86 FR 2867-2874)

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act

Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical

habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and

available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: No historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to

notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to

ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by

the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) All NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites;

and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects

(temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) That the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

F. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently

adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes

characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due

to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: (1) Held in trust by the United States for the benefit of any Indian tribe or individual; or (2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
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JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

Corrected Copy

October 8, 2021 **Corrected Copy Date:** DEC 2 1 2021

U.S. Army Corps of Engineers, Rock Island
ATTN: Ms. Samantha Chavez, Regulatory Branch
Post Office Box 2004
Clock Tower Building
Rock Island, IL 61204-2004

Re: Federal Register [Docket Number: COE–2020–0002] Proposal to Reissue and Modify Nationwide Permits, September 15, 2020
CWA §401 Certification/Denial and applicable conditions
Illinois EPA Log no. C-0210-20

Dear Ms. Chavez:

On September 15, 2020 the Corps of Engineers issued the notice of proposed rulemaking concerning their determination to reissue and modify the current Nationwide Permits (NWPs) that are set to expire on March 18, 2022. By letter dated August 19, 2021 your office extended the reasonable period of time to revise the §401 water quality certification to October 13, 2021 for thirty-two (32) NWPs. The Agency has made modifications to the certification conditions issued on December 11, 2020. By this final determination document the Illinois EPA grants §401 water quality certification for NWPs 3, 4, 5, 6, 7, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 27, 30, 31, 32, 33, 36, 37, 38, 41, 45, 53, and 54 with the special and/or general conditions specified below. This document also provides the certification conditions for NWPs 12, 29, 39, 40, 42, 43, 51, 52, 57, and 58 and notice of the Agency determination to deny eight (8) of the proposed nationwide permits which are provided below with reasons in accordance with 40 CFR 121.7(e)(2).

CWA §401 certification is hereby granted, subject to General Conditions 1 through 12 below, for the following nationwide permits:

NWP 3 – Maintenance
NWP 4 – Fish and Wildlife Harvesting, Enhancement, and Attraction Device and Activities
NWP 5 – Scientific Measurement Devices
NWP 7 – Outfall Structures and Associated Intake Structures
NWP 18 – Minor Discharges
NWP 19 – Minor Dredging
NWP 20 – Response Operations for Oil or Hazardous Substances
NWP 22 – Removal of Vessels
NWP 25 – Structural Discharges
NWP 30 – Moist Soil Management for Wildlife
NWP 31 – Maintenance of Existing Flood Control Facilities
NWP 33 – Temporary Construction, Access and Dewatering
NWP 36 – Boat Ramps
NWP 41 – Reshaping Existing Drainage Ditches
NWP 45 – Repair of Uplands Damaged by Discrete Events

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2009 Mall Street Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

CWA §401 certification is hereby granted, subject to General Conditions 1 through 12 below and the Special Conditions which are contained in the referenced attachment for the following identified nationwide permits:

NWP 6 – Survey Activities. Refer to Special Conditions for NWP 6 in Attachment.
NWP 12 – Oil or Natural Gas Pipeline Activities. Refer to Special Conditions for NWP 12 in Attachment.
NWP 13 – Bank Stabilization. Refer to Special Conditions for NWP 13 in Attachment.
NWP 14 – Linear Transportation Projects. Refer to Special Conditions for NWP 14 in Attachment.
NWP 15 – U.S. Coast Guard Approved Bridges. Refer to Special Conditions for NWP 15 in Attachment.
NWP 16 – Return Water from Upland Contained Disposal Areas. Refer to Special Conditions for NWP 16 in Attachment.
NWP 17 – Hydropower Projects. Refer to Special Conditions for NWP 17 in Attachment.
NWP 23 – Approved Categorical Exclusions. Refer to Special Conditions for NWP 23 in Attachment.
NWP 27 – Aquatic Habitat Restoration, Establishment, and Enhancement Activities. Refer to Special Conditions for NWP 27 in Attachment.
NWP 29 – Residential Developments. Refer to Special Conditions for NWP 29 in Attachment.
NWP 32 – Completed Enforcement Actions. Refer to Special Conditions for NWP 32 in Attachment.
NWP 37 – Emergency Watershed Protection and Rehabilitation. Refer to Special Conditions for NWP 37 in Attachment.
NWP 38 – Cleanup of Hazardous and Toxic Waste. Refer to Special Conditions for NWP 38 in Attachment.
NWP 39 – Commercial and Institutional Developments. Refer to Special Conditions for NWP 39 in Attachment.
NWP 40 – Agricultural Activities. Refer to Special Conditions for NWP 40 in Attachment.
NWP 42 – Recreational Facilities. Refer to Special Conditions for NWP 42 in Attachment.
NWP 43 – Stormwater Management Facilities. Refer to Special Conditions for NWP 43 in Attachment.
NWP 51 – Land-Based Renewable Energy Generation Facilities. Refer to Special Conditions for NWP 51 in Attachment.
NWP 52 – Water-Based Renewable Energy Generation Pilot Projects. Refer to Special Conditions for NWP 52 in Attachment.
NWP 53 – Removal of Low-Head Dams. Refer to Special Conditions for NWP 53 in Attachment.
NWP 54 – Living Shorelines. Refer to Special Conditions for NWP 54 in Attachment.
NWP 57 – Electric Utility Line and Telecommunications Activities. Refer to Special Conditions for NWP 12 in Attachment.
NWP 58 – Utility Line Activities for Water and Other Substances. Refer to Special Conditions for NWP 12 in Attachment.

CWA §401 certification is hereby denied with reasons provided in accordance with 401 CFR 121.7 for the following NWPs:

NWP 21 – Surface Coal Mining Activities. The Illinois EPA has determined that a case-specific review is warranted for all surface mining activities including carbon extraction because pursuant to 35 Ill. Admin. Code Section 401.102, mining activities are identified as having, when certain refuse materials are used, the capability to cause or threaten to cause a nuisance or render waters harmful or detrimental to public health and to all legitimate uses including but not limited to livestock and wildlife uses. The likelihood that contaminants related to coal extraction, particularly acid producing minerals in mine refuse, would be found within overburden and soil stockpiles and therefore present within fill materials warrant a facility specific antidegradation assessment pursuant to 35 Ill. Admin. Code Section 302.105. Additionally, Illinois' Section 401 implementation rules at 35 Ill. Admin. Code Part 395 regarding material testing exemptions specifically exclude material with known sources of pollution. Therefore, Section 401 certification is denied for this nationwide permit (NWP21).

NWP 34 – Cranberry Production Activities: The Illinois EPA has determined that the area of impact that is allowed by an authorization under this nationwide permit exceeds 1/2 acre. 1/2 acre is determined to be representative of the maximum threshold for minimal degradation of existing uses of aquatic resources. Consequently, any activity authorized under this nationwide permit must be subject to a case-specific antidegradation assessment pursuant to 35 Ill. Admin. Code Section 302.105. Therefore, the Illinois EPA denies 401 certification for NWP 34.

NWP 44 – Mining Activities: The Illinois EPA has determined that a case-specific review is warranted for all surface mining activities because pursuant to 35 Ill. Admin. Code Section 401.102, mining activities are identified as having, when certain refuse materials are used, the capability to cause or threaten to cause a nuisance or render waters harmful or detrimental to public health and to all legitimate uses including but not limited to livestock and wildlife uses. Furthermore, all mining activities are regulated by the Illinois EPA under federal and state statute because of their potential to cause or threaten to cause water pollution. Therefore, for the above reasons, the Illinois EPA denies 401 certification for NWP 44.

NWP 46 – Discharges into Ditches: The Illinois EPA has determined that a case-specific review is warranted for all discharge activities into ditches because of the nationwide permit exceeds the 1/2 acreage determined to be the maximum threshold for minimal degradation of existing uses of aquatic resources. Consequently, any activity authorized under this nationwide permit must be subject to a case-specific antidegradation assessment pursuant to 35 Ill. Admin. Code Section 302.105. Therefore, the Illinois EPA denies 401 certification for NWP 46.

NWP 48 – Commercial Shellfish Mariculture Activities: As proposed, the Illinois EPA believes this nationwide permit is inapplicable to waters of the U.S. that are found within the State of Illinois. Therefore, the Illinois EPA denies 401 certification for NWP 48.

NWP 49 – Coal Remining Activities: By reference to the certification denial explanation for NWP 21, the Illinois EPA denies 401 certification for NWP 49.

NWP 50 – Underground Coal Mining: By reference to the certification denial explanation for NWP 21, the Illinois EPA denies 401 certification for NWP 50.

NWP 59 – Water Reclamation and Reuse Facilities: As proposed in the Federal Register, this proposed nationwide permit would appear to allow utilization of existing natural waterbodies as treatment devices. According to 35 Ill. Admin. Code 301.440 such utilization is not permissible. Therefore, the Illinois EPA denies 401 certification for NWP 59.

401 Certification General Conditions

General Conditions 1 through 12 shall be applicable to all NWPs that are granted 401 certification.

General Condition 1: Waterbodies that Require Individual Certification

Pursuant to 35 Ill. Adm. Code Section 302.105(d)(6), an individual 401 water quality certification will be required for activities permitted under these Nationwide Permits for discharges to waters designated by the State of Illinois as waters of particular biological significance or Outstanding Resource Waters under 35 Ill. Adm. Code 302.105(b). Biologically Significant Streams (BSS) are cataloged in Illinois DNR's publication

"Integrating Multiple Taxa in a Biological Stream Rating System" and may be identified at: https://www2.illinois.gov/dnr/conservation/BiologicalStreamratings/Pages/default.aspx.

General Condition 2: Water Quality Impairments

Pursuant to 35 Ill. Adm. Code Sections 302.105(a), 302.105(c)(2)(B), and 395.401(a), an individual 401 water quality certification will be required for activities permitted under these Nationwide Permits that may cause a discharge that, whether temporarily or permanently, may cause or contribute to additional loading of any pollutant, or deterioration of any water quality parameter, such as pH or dissolved oxygen, where such pollutant or parameter is also designated by the State of Illinois as a cause of water quality impairment of the particular segment of the receiving water body according to the Illinois Environmental Protection Agency's Section 303(d) list. The most recent Illinois Integrated Water Quality Report and Section 303(d) List can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx.

General Condition 3: Threatened and Endangered Species

Pursuant to 35 Ill. Admin. Code Section 302.105(f)(1)(F), prior to proceeding with any work in furtherance of activities permitted under these Nationwide Permits, potential impacts to State threatened or endangered species and Natural Areas shall be determined in accordance with applicable consultation procedures established under 17 Ill. Admin Code Part 1075. The Department of Natural Resources (IDNR) Ecological Compliance Assessment Tool (EcoCAT) is available to complete consultation at http://dnr.illinois.gov/EcoPublic/. If IDNR determines that adverse impacts to protected natural resources are likely, the applicant shall address those identified concerns with IDNR through the consultation process. Please contact IDNR, Impact Assessment Section at 217-785-5500 if you have any questions regarding consultation.

General Condition 4: TMDLs

Pursuant to 35 Ill. Admin. Code Sections 302.105(a), 302.105(c)(2)(B), and 395.401(a), activities permitted under these Nationwide Permits that may cause a discharge that, whether temporarily or permanently, may cause or contribute to additional loading of any pollutant, or deterioration of any water quality parameter, such as pH or dissolved oxygen, where such pollutant or parameter is addressed by a USEPA approved Total Maximum Daily Load (TMDL) report for the receiving water body shall develop and implement additional measures and or procedures which ensure consistency with the load allocations, assumptions and requirements of the TMDL report. TMDL program information and water listings are available at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/reports.aspx.

General Condition 5: Prohibitions

Pursuant to 35 Ill. Admin. Code Section 395.401(a), the applicant shall not cause:

a. violation of applicable provisions of the Illinois Environmental Protection Act;
b. water pollution defined and prohibited by the Illinois Environmental Protection Act;
c. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation; or
d. interference with water use practices near public recreation areas or water supply intakes.

General Condition 6: Erosion and Sedimentation Control Measures

Pursuant to the Illinois Environmental Protection Act Section 39(a)[415 ILCS 5/39(a)] and 35 Ill. Admin. Code Sections 302.203 and 395.402(b)(2), the applicant shall implement all necessary sedimentation and erosion control measures consistent with the current edition of

the "Illinois Urban Manual" found at https://illinoisurbanmanual.org/. Interim measures to prevent erosion during construction shall be taken and may include the installation of sedimentation basins, silt fencing and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions. All areas affected by construction shall be seeded and stabilized as soon after construction as possible.

General Condition 7: NPDES Stormwater Construction Permit

Pursuant to the Illinois Environmental Protection Act Section 39(a)[415 ILCS 5/39(a)] and 35 Ill. Admin. Code Section 395.402(b)(2), the applicant shall be responsible for obtaining an NPDES Storm Water Permit required by the federal Clean Water Act prior to initiating construction if the construction activity associated with the project will result in the disturbance of 1 (one) or more acres, total land area. An NPDES Storm Water Permit may be applied for at https://www2.illinois.gov/epa/topics/forms/water-permits/storm-water/Pages/construction.aspx.

General Condition 8: Spill Response Plan

Pursuant to 35 Ill. Admin. Code Sections 395.401, 302.203, and 302.208, the applicant shall ensure that a spill avoidance and response plan has been developed and implemented for management of accidental releases of petroleum, oil, and lubricant products to the aquatic environment during construction and for emergency notification of applicable downstream water supply operators. Absorbent pads, containment booms and skimmers shall be available to facilitate the cleanup of petroleum spills. If floating hydrocarbon (oil and gas) products are observed, the applicant or his designated individual will be responsible for directing that work be halted so that appropriate corrective measures are taken in accordance with the plan prior to resuming work.

General Condition 9: Hydraulic Machinery

Pursuant to 35 Ill. Admin. Code Sections 302.203, 302.304, and 302.515, all hydraulic machinery utilized for the permitted activity and used in or immediately adjacent to waters of the State shall utilize biodegradable or bio-based hydraulic fluids to minimize pollution in the case of broken or leaking hydraulic equipment.

General Condition 10: Temporary Structures and Work

Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.204, and 395.401(b), temporary work pads, cofferdams, access roads and other temporary fills are approved provided that such activities are constructed with clean coarse aggregate or non-erodible non-earthen fill material that will not cause siltation. Sandbags, pre-fabricated rigid materials, sheet piling, inflatable bladders and fabric lined basins may be used for temporary facilities. Temporary fills within streams, creeks or rivers shall utilize adequate bypass measures (i.e. dam and pump, flumes, culverts, etc.) to minimize sedimentation and erosion and to maintain normal stream flow during construction.

General Condition 11: Construction Site Dewatering

Pursuant to Illinois Environmental Protection Act Section 39(a)[415 ILCS 5/39(a)] and 35 Ill. Admin. Code Section 395.402(b)(2), dewatering of a construction site is authorized provided the dewatering activity is limited to the immediate work area within a cofferdam or otherwise isolated from waters of the State, and the work site is free from sources of contamination including those of natural origin. Dewatering activities shall incorporate Best Management Practices in accordance with the current edition of the "Illinois Urban Manual"

https://illinoisurbanmanual.org/. Practice Standard for Dewatering (no. 813) or as otherwise appropriate to ensure that return flows from the dewatering activity are free of unnatural turbidity and floating debris and meet applicable water quality standards. Dewatering or discharge of flush water from construction of drilled piers or boreholes is not authorized and must be conducted in accordance with an NPDES permit issued by the Illinois EPA.

General Condition 12: Discharged Material Quality

Pursuant to 35 Ill. Admin. Code Sections 302.203, 302.208, and 395.401(b), any spoil material excavated, dredged or otherwise produced must not be returned to the water body but must be deposited in a self-contained area in compliance with all state statutes. Except as specifically allowed by special condition, any backfilling must be done with clean material that is predominantly sand or larger size material, with no more than 20% passing a #230 U. S. sieve and placed in a manner to prevent violation of applicable water quality standards.

401 Certification Special Conditions

Special Conditions including the conditional exclusions of 401 certification coverage that are listed within the Attachment: "Special Conditions for Illinois EPA 401 Water Quality Certifications of Certain Nationwide Permits" shall be applicable as stated therein.

Should you have any questions or comments regarding the content of this nationwide certification, please contact Darren Gove at 217-782-3362.

Sincerely,

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

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Attachment: Special Conditions for Illinois EPA 401 Water Quality Certifications of Certain Nationwide Permits Regarding Federal Register [Docket Number: COE–2020–0002] Proposal to Reissue and Modify Nationwide Permits dated September 15, 2020

cc: Records Unit
CoE, Chicago District
CoE, Louisville District (Indianapolis Office)
CoE, Louisville District (Newburgh Regulatory Office)
CoE, Memphis District
CoE, St. Louis District
IDNR, Bartlett
IDNR, OWR, Chicago
IDNR, OWR, Springfield
USEPA, Region 5
USFWS, Rock Island, Barrington and Marion

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 6
Survey Activities

1. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(iii), 302.203, and 395.401(a), the applicant for the applicable nationwide permit shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

2. Pursuant to 35 Ill. Admin. Code Section 395.401(a), material resulting from trench excavation within surface waters of the State may be temporarily sidecast adjacent to the trench excavation provided that:
   a. Sidecast material is not placed within a creek, stream, river or other flowing water body such that material dispersion could occur;
   b. Sidecast material is not placed within ponds or other water bodies other than wetlands; and
   c. Sidecast material is not placed within a wetland for a period longer than twenty (20) calendar days. Such sidecast material shall either be removed from the site or used as backfill (refer to Condition 4).

3. Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.205, and 395.401(a), backfill used within trenches passing through surface water of the State, except wetland areas, shall be clean coarse aggregate, gravel or other material which will not cause siltation. Excavated material may be used only if:
   a. Particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using a #230 U.S. sieve; or
   b. Excavation and backfilling are done under dry conditions.

4. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii) and 395.401(a), backfill used within trenches passing through wetland areas shall consist of clean material which will not cause siltation. Excavated material shall be used to the extent practicable, with the upper six (6) to twelve (12) inches backfilled with the topsoil obtained during trench excavation.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMITS 12, 57, and 58.
Utility Line Activities, Electric, Water, and Others.

1. Pursuant to 35 Ill. Adm. Code Sections 302.105(c)(2)(B), 302.208, and 395.401, a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for:
   a. activities in the following waters:
      i. Lake Calumet
      ii. Fox River (including the Fox Chain of Lakes)
      iii. Lake Michigan
      iv. Chicago Sanitary and Ship Canal
      v. Calumet-Sag Channel
      vi. Little Calumet River
      vii. Grand Calumet River
      viii. Calumet River
      ix. Pettibone Creek (in Lake County)

x. South Branch of the Chicago River (including the South Fork)
xi. North Branch of the Chicago River (including the East and West Forks and the Skokie Lagoons)
xii. Chicago River (Main Stem)
xiii. Des Plaines River
xiv. Kankakee River

b. activities in the following waters if material is sidecast into waters of the State or wetlands:
i. Saline River (in Hardin County)
ii. Richland Creek (in St. Clair and Monroe Counties)
iii. Rock River (in Winnebago County)
iv. Illinois River upstream of mile 229.6 (Illinois Route 178 bridge)
v. Illinois River between mile 140.0 and 182.0
vi. DuPage River (including the East and West Branches)
vii. Salt Creek (Des Plaines River Watershed)
viii. Waukegan River (including the South Branch)

c. activities in waters designated as Public and Food Processing Water Supplies with surface intake facilities within 2000 feet of the proposed discharge unless the discharge is reasonably considered downstream of the intake. The Illinois EPA's Division of Public Water Supply at 217/782-1020 may be contacted for information on these water supplies

2. Section 401 water quality certification is hereby issued for all other waters, with the following conditions:

a. Pursuant to 35 Ill. Admin. Code Sections 395.401(b) and 302.105(c)(2)(B)(iii), the applicant for the applicable nationwide permit(s) shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

b. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, dredged material resulting from trench excavation within surface waters of the State may be temporarily sidecast adjacent to the trench excavation provided that:
i. Sidecast material is not placed within a creek, stream, river or other flowing water body such that material dispersion could occur;
ii. Side cast material is not placed within ponds or other water bodies other than wetlands; and
iii. Sidecast material is not placed within a wetland for a period longer than twenty (20) calendar days. Such sidecast material shall either be removed from the site (refer to Condition 2.e) or used as backfill (refer to Condition 2.d).

c. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, backfill used within trenches passing through surface water of the State, except wetland areas, shall be clean course aggregate, gravel or other material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material may be used only if:
i. Particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using a #230 U.S. sieve; or
ii. Excavation and backfilling are done under dry conditions.

d. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, backfill used within trenches passing through wetland areas shall consist of clean material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material shall be used to the extent practicable, with the upper six (6) to twelve (12) inches backfilled with the topsoil obtained during trench excavation.

e. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, all material excavated which is not being used as backfill as stipulated in Condition 2.d and 2.c shall be stored or disposed in self-contained areas with no discharge to waters of the State. Material shall be disposed of appropriately under the regulations at 35 Il. Adm. Code Subtitle G.

f. Pursuant to 35 Ill. Admin. Code Sections 395.401(b), 302.203, and 302.208, the use of directional drilling to install utility pipelines below surface waters of the State is hereby certified provided that:
   i. All pits and other construction necessary for the directional drilling process are located outside of surface waters of the State;
   ii. All drilling fluids shall be adequately contained such that they cannot cause a discharge to surface waters of the State. Such fluids shall be treated as stipulated in Condition 2.F; and
   iii. Erosion and sediment control is provided in accordance with Conditions 2.B, 2.G, and 2.H.

g. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(iii), 302.203, and 395.401(b), permanent access roads shall be constructed of clean coarse aggregate or non-erodible nonearthen fill material that will not cause siltation. Material excavated or dredged from the surface water or wetland shall not be used to construct the access road in waters of the state. The applicant for Nationwide Permit 12 that constructs access roads shall maintain flow in creeks, streams and rivers by installing culverts, bridges or other such techniques.

h. Pursuant to 35 Ill. Admin. Code Sections 395.401(b) and 302.203, adjacent banks and slopes disturbed by construction shall be stabilized immediately following construction. The applicant shall undertake necessary measures and procedures to eliminate stormwater channelization via the utility route during and after construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of sedimentation basins, check dams, straw bales and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions.

i. Pursuant to 35 Ill. Admin. Code Sections 395.401(b) and 302.203, asphalt, bituminous material and concrete with protruding material such as reinforcing bar or mesh shall not be 1) used for backfill, 2) placed on shorelines/stream banks, or 3) placed in waters of the State.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 13
Bank Stabilization

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a) and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for bank stabilization activities that will exceed 1000 linear feet.

2. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), asphalt, bituminous material and concrete with protruding material such as reinforcing bars or mesh shall not be:
   a. used for backfill;
   b. placed on shorelines/streambanks; or
   c. placed in waters of the State.

3. Pursuant to 35 Ill. Admin. Code Sections 302.203, 302.208, and 395.401(b), the applicant shall consider installing bioengineering practices in lieu of structural practices of bank stabilization to minimize impacts to the lake, pond, river or stream and enhance aquatic habitat. The applicant shall document the selection process for the bank stabilization technique(s) and the basis for the selection of the bank stabilization practices. Bioengineering techniques may include, but are not limited to:
   a. adequately sized riprap or A-Jack structures keyed into the toe of the slope with native plantings on the banks above;
   b. vegetated geogrids;
   c. coconut fiber (coir) logs;
   d. live, woody vegetative cuttings, fascines or stumps;
   e. brush layering; and
   f. soil lifts.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 14
Linear Transportation Projects

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for linear transportation activities that cause loss of greater than 500 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for linear transportation activities covered by this nationwide permit that include the temporary or permanent placement of steel or other painted structures within the waterbody as result of demolition work of previous structures.

3. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for new or expanded roadways that affect waterways which are designated by the State of Illinois as having water quality impairments caused by chloride. The most recent Illinois Integrated Water Quality Report and Section 303(d) List can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx

4. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 15
U.S. Coast Guard Approved Bridges

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA shall be required for linear transportation activities covered by this nationwide permit that include the temporary or permanent placement of demolished structural or decking materials within the waterbody as result of demolition work of previous structures.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA shall be required for new bridges (not replacing another) that affect waterways which are designated by the State of Illinois as having water quality impairments caused by chloride. The most recent Illinois Integrated Water Quality Report and Section 303(d) List can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 16
Return Water from Upland Contained Disposal Areas

1. Pursuant to 35 Ill. Adm. Code Sections 302.105(c)(2)(B), 302.208, and 395.401, a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for:

    a. return water discharge resulting from dredging activities in the following waters:
        i. Lake Calumet
        ii. Fox River (including the Fox Chain of Lakes)
        iii. Lake Michigan
        iv. Chicago Sanitary and Ship Canal
        v. Calumet-Sag Channel
        vi. Little Calumet River
        vii. Grand Calumet River
        viii. Calumet River
        ix. Pettibone Creek (in Lake County)
        x. South Branch of the Chicago River (including the South Fork)
        xi. North Branch of the Chicago River (including the East and West Forks and the Skokie Lagoons)
        xii. Chicago River (Main Stem)
        xiii. Des Plaines River
        xiv. Kankakee River
        xv. Saline River (in Hardin County)
        xvi. Richland Creek (in St. Clair and Monroe Counties)

xvii. Rock River (in Winnebago County)
xviii. Illinois River upstream of mile 229.6 (Illinois Route 178 bridge)
xix. Illinois River between mile 140.0 and 182.0
xx. DuPage River (including the East and West Branches)
xxi. Salt Creek (Des Plaines River Watershed)
xxii. Waukegan River (including the South Branch)
xxiii. any waters designated as

b. return water discharge, resulting from dredging activities, in waters designated as Public and Food Processing Water Supplies with surface intake facilities within 2000 feet of the proposed discharge unless the discharge is reasonably considered downstream of the intake. The Illinois EPA's Division of Public Water Supply at 217/782-1020 may be contacted for information on these water supplies.

c. disposal areas or return water discharges that are located within a designated Environmental Justice (EJ) area of concern. An EJ mapping tool is available at https://illinois-epa.maps.arcgis.com/apps/webappviewer/index.html?id=f154845da68a4a3f837cd3b880b0233c.

d. dredging activities that would result in upland placement of more than 125,000 cubic yards of material or would produce effluent discharge on a recurring basis for a period lasting more than 5 years, including periods covered under a previous Department of the Army authorization.

e. hydraulic dredging activities if the total quantity of dredged material per dredge event would exceed 500 cubic yards and the receiving water:
   i. is listed on the Agency's 303(d) List, or
   ii. has a USEPA approved Total Maximum Daily Load (TMDL) is in effect, or
   iii. is designated pursuant to Section 302.206(d) Stream Segments for Enhanced Dissolved Oxygen Protection.

   Information on 303(d) List and TMDLs can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/default.aspx and Information on Stream Segments for Enhanced Dissolved Oxygen Protection may be found at https://pcb.illinois.gov/documents/dsweb/Get/Document-33354/. You may also utilize Resource Management Mapping Service to graphically identify impaired waters at https:// www.rmms.illinois.edu/.

2. Section 401 water quality certification is otherwise hereby issued pursuant to the Illinois Environmental Protection Act Section 12(a) [415 ILCS 5/12(a)] and 35 Ill. Admin. Code Section 395.402(b)(2), except that applicants shall apply for and obtain a water pollution control permit for construction and operation of the upland contained disposal area as provided by 35 Ill. Admin. Code Subtitle C Part 309 Subpart B, prior to dredging activities.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 17
Hydropower Projects

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(b), an individual Section 401 water quality certification will be required for any project that is not previously approved by a Section 401 water quality certification issued by the Illinois EPA for a Federal Energy Regulatory Commission license or permit.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 23
Approved Categorical Exclusions

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that will cause the loss of aquatic resources which exceed the lessor of ½ acres or 300 linear feet of stream channel as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for linear transportation activities covered by this nationwide permit which includes the temporary or permanent placement of painted steel or other painted structures within the waterbody as a result of related demolition work.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 27
Aquatic Habitat Restoration, Establishment, and Enhancement Activities

1. Pursuant to the Illinois Environmental Protection Act Section 12(a)[415 ILCS 5/12(a)] and 35 Ill. Admin. Code Sections 395.401(a) and 395.401(b)(2), all activities conducted under this nationwide permit shall be in accordance with the provisions of 35 Ill. Adm. Code 405.108. Work in reclaimed surface coal mine areas are required to obtain prior authorization from the Illinois EPA for any activities that result in the use of acid-producing mine refuse.

2. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B), 302.208, and 395.401(a), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for the relocation of waters of the State.

3. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B), 302.203, and 395.401(a), any backfilled materials used within artificial channels shall be clean coarse aggregate, gravel or other material which will not cause siltation and placed in a manner to prevent violation of applicable water quality standards.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 29
Residential Developments

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2 Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

3. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 32
Completed Enforcement Actions

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that involve carbon recovery (coal mining or coal remining) or materials that may be considered "acid-producing material".

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that include proposed (yet to be undertaken) loss of aquatic resources which exceed the lessor of ½ acres or 300 linear feet of stream channel as measured along the stream corridor.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 37
Emergency Watershed Protection and Rehabilitation

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that will cause the loss of aquatic resources which exceed the lessor of ½ acres or 300 linear feet of stream channel as measured along the stream corridor.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 38
Cleanup of Hazardous and Toxic Waste

1. Pursuant to 35 Ill. Admin. Code Section 395.401(b), a case-specific (individual) Section 401 water quality certification will be required for activities covered by this nationwide permit that do not require or will not receive authorization or approval from the Illinois EPA, Bureau of Land (BOL).

2. Pursuant to 35 Ill. Admin. Code Section 395.401(b), the applicant shall notify the Illinois EPA, Bureau of Water, Permit Section, of the specific activity. This notification shall include information concerning the orders and approvals that have been or will be obtained from the BOL, for all cleanup activities under BOL jurisdiction or for which authorization or approval is sought from BOL for no further remedial action.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 39
Commercial and Institutional Developments

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, water treatment plants, wastewater treatment plants and related facilities prior to construction.

3. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

4. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, and 395.401(b), for construction of oil and gas wells, the impacted waters of the State shall be restored to pre-construction conditions within six months after construction is started. For purposes of this condition, restoration includes stabilization and seeding or planting of vegetation on the disturbed areas that were vegetated prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 40
Agricultural Activities

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 42
Recreational Facilities

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2 Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

3. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 43
Stormwater Management Facilities

1. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), the Agency hereby issues Section 401 water quality certification of Nationwide Permit 43 exclusively for the construction and maintenance of pollutant reduction green infrastructure features designed to reduce inputs of sediments, nutrients, and other pollutants into waters to meet reduction targets established under Total Daily Maximum Loads set under the Clean Water Act. All other activities authorized under this Nationwide Permit are denied Section 401 water quality certification. For purposes of this water quality certification green infrastructure means wet weather management approaches and technologies that utilize, enhance or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse. Green infrastructure approaches currently in use include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, porous and permeable pavements, porous piping systems, dry wells, vegetated median strips, reforestation/revegetation, rain barrels and cisterns and protection and enhancement of riparian buffers and floodplains. Material excavated, dredged or produced from the maintenance of green infrastructure features shall not be discharged to waters of the State.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

3 Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

4. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION
REGIONAL CONDITIONS FOR NATIONWIDE PERMIT 51
Land-Based Renewable Energy Generation Facilities

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 52
Water-Based Renewable Energy Generation Pilot Projects

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Section 395.401(b), an individual Section 401 water quality certification will be required for any hydrokinetic project that is not previously approved by a Section 401 water quality certification issued by the Illinois EPA for a Federal Energy Regulatory Commission license or permit.

ILLINOIS EPA WATER QUALITY CERTIFICATION
REGIONAL CONDITIONS FOR NATIONWIDE PERMIT 53
Removal of Low-Head Dams

1. Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.205 and 395.401(b), the applicant shall implement the following Best Management Practices and Material Testing:
    a. Sediments and river bottom material are excavated and removed to upland areas to minimize sediment transport downstream, minimize downcutting and protect water quality; or
    b. measures shall be implemented to minimize sediment transport downstream; or

c. the sediments and river bottom materials that will be transported downstream are determined to have less than 20 percent passing a #230 U.S. Sieve based on representative sampling and analysis of the sediments and river bottom materials; or
d. a combination of the above practices to protect water quality; and
e. sediments and river bottom materials shall not be pollutional if released to downstream waters.

2. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, and 395.401(b), Best Management Practices shall be implemented to minimize sediment transport downstream, minimize downcutting of sediment and river bottom materials and protect water quality.

3. Pursuant to 35 Ill. Admin. Code Section 395.401(a), the applicant shall notify downstream surface water supplies of the proposed dam removal. The applicant shall implement practices to prevent interference with Public and Food Processing Water Supply intakes. The Illinois EPA's Division of Public Water Supply may be contacted at 217/782-1020 for information on the Public and Food Processing Water Supplies.

4. Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.401(b) and 395.402(b)(2), any spoil material excavated, dredged or otherwise produced during dam removal activities must not be returned to the waterway but must be deposited in a self-contained area in compliance with all state statutes, regulations and permit requirements with no discharge to waters of the State unless a permit has been issued by this Agency.

ILLINOIS EPA WATER QUALITY CERTIFICATION
SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 54
Living Shorelines

1. Pursuant to 35 Ill. Admin. Code Section 395.401(a), an individual Section 401 water quality certification shall be required for any project that exceeds 1000 feet as measured along the bank or when the District Engineer waives the limitation of 30 feet as measured from the mean high water line.

US Army Corps of Engineers ®

Illinois Regional Conditions 2021 Nationwide Permits

1) For NWP 12, 57, and 58: pre-construction notification is required in accordance with General Condition 32 for the following activities; (a) activities that involve mechanized land clearing in a forested wetland for the utility line right-of-way; (b) utility lines placed within, and parallel to or along a jurisdictional stream bed.

2) For Nationwide Permit 14, all proposed projects that result in the loss of greater than 300 linear feet of streambed located within Waters of the U.S., requires a Pre-Construction Notice in accordance with General Condition No. 32.

3) Any bank stabilization activity involving a method that protrudes from the bank contours, such as jetties, stream barbs, and/or weirs, will require a pre-construction notification in accordance with General Condition 32.

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct 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 of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal- aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

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XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.