# *ADAMS COUNTY ENGINEER*

***201 N POLK ST., MONROE, IN 46772***

Office: 260-692-6551 email: nrumschlag@adamscounty.in.gov


# ADAMS COUNTY BRIDGE 142
# Project No. 2023-05
# ADDENDUM #1

Date: December 22, 2025

The attention of all prospective Bidders on the subject project is directed to the following change in project specifications:

Revise Specification "BID SUBMISSION" 5.1 on page ITB-3 to read as follows

"All Bid Documents shall be placed within a sealed envelope which shall be plainly labeled on the outside with the name and address of the Bidder along with the Project name and number and Due Date. If forwarded by mail, the sealed envelope must be enclosed in another envelope addressed to: **Office of the Auditor at the Adams County Service Complex at 313 W Jefferson St. Decatur, IN 46733**"

Revise Specification "Contract Time" 3.2 on page A-3 to read as follows:

"Substantial Completion on or before November 15, 2026 and Final Completion on or before December 15, 2026."

Revise Specification "Contract Time" 3.2.1 on page A-3 to read as follows:

"Consecutive construction road closure shall not exceed **75** consecutive days."

Replace Technical Specifications – Material Workmanship section as attached to this addendum:

See attached Special Provisions

Replace the Bid Form as attached to this addendum

See attached Itemized Bid Form

Please acknowledge receipt of this Addendum in final proposal.

Sincerely,

_____

Nate Rumschlag, PE, MCM
County Engineer

SPECIAL PROVISIONS INDEX

## SP-1 EXISTING CONDITIONS

The Contractor shall verify the elevation and measurements of all points where new construction is to match existing conditions prior to the commencement of any construction activities.

Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer or assume responsibility for their correctness and the fit of new parts to old. If such parts do not fit properly, the Contractor shall make such alterations to new parts as may be necessary to assure proper fits and connection, which meets the approval of the Engineer.

No direct payment shall be made for this work, but the cost thereof shall be included in the costs of other items of the Contract.

## SP-2 GENERAL

The following Special Provisions are in addition to the Indiana Department of Transportation's Standard Specifications dated 2026. These Special Provisions shall govern over the Standard and Supplemental Specifications.

"Standard Specifications" shall mean the Indiana Department of Transportation Standard Specifications dated 2026, effective for lettings on or after September 1, 2023, together with the most recently published Supplemental Specifications and all applicable Indiana Department of Transportation Standard Drawings, except when conflicting with the Plans or these Special Provisions. Copies of the INDOT Standard Drawings are available on INDOT's Website.

## SP-3 QUESTIONS, INTERPRETATION OF PLANS, SPECIFICATIONS AND ADDENDA

All questions concerning the letting of this project shall be submitted in writing to the Engineer (USI Consultants, Inc. Attention: Kevin Thomas, 8415 E. 56$^{th}$ St., Indianapolis, IN 46216, kthomas@usiconsultants.com prior to 12:00 p.m. local time, January 6th, 2026. A written response will be emailed or faxed to the addresses or fax numbers on the "Record of Plan Holders." No questions will be answered by phone.

## SP-4 OWNERS & CONTRACTORS PROTECTIVE LIABILITY INSURANCE

Section 103, Begin Line 627 of the Standard Specifications, Delete and Insert as Follows: The named insured in this policy shall be the State of Indiana, c/o Indiana Department of Transportation. If specified elsewhere in the contract, the named insured shall also include a local governmental agency. Adams County Board of Commissioners, Adams County, Indiana.

## SP-5 SCOPE OF WORK

The work called for under these specifications, includes the furnishing of all labor, materials, equipment, appurtenances, and means of conveyance for all materials and equipment necessary for the replacement of the following project:

ADAMS COUNTY BRIDGE NUMBER 142, OVERLAY
CARRYING CR 300 WEST OVER WABASH RIVER
ADAMS COUNTY, INDIANA

All work is to be completed in accordance with these Plans and Special Provisions as approved by the Engineer.

## SP-6 UNDISTRIBUTED ITEMS

Quantities of undistributed items needed in addition to those shown on the itemized proposal and approved by the Engineer will be paid for at the contract unit price for the quantity used on the project. There shall be no adjustment in the contract unit price if quantities are less than those shown on the itemized proposal and the item can be deleted entirely without impact to the contract amount. All work involving undistributed items shall be performed only at the direction of the Engineer.

## SP-7 UNIT COST PER ITEM CONTRACT - PLAN QUANTITY

The estimate of quantities of work to be done and material to be furnished under this contract as shown on the plans is approximate and is given only as a basis of calculation. Actual bid prices will be paid based on the plan quantities provided at the contract unit prices, unless actual quantities vary by more than ten percent (10%) of plan quantity or the quantity is undistributed. The Contractor shall provide proof of such variance to the satisfaction and approval of the Engineer. Failure to submit proof prior to the next progress estimate assumes actual quantity is within the ten percent (10%) of plan quantity and the Contractor loses the right to receive additional payment.

## SP-8 CONTRACTOR'S RESPONSIBILITY FOR MATCHING OLD WORK

The Contractor shall verify the elevations and measurements of all points where new construction is to match existing conditions prior to the commencement of any construction activities.

Where new work is to be fitted to old work, the Contractor shall check all leading dimensions and conditions in the field and report any errors or discrepancies to the Engineer or assume responsibility for their correctness and the fit of new parts to old. If such parts do not fit properly, the Contractor shall make at the Contractor’s expense such alterations to new parts as may be necessary to assure proper fits and connections, which meet the approval of the Engineer.

The Contractor shall provide a drawing with corrected dimensions at no additional cost to the

contract.

## SP-9 INSPECTION AND SUPERVISION

The Engineer or their duly authorized representatives shall have authority over the construction of this project at all times. All necessary construction engineering layout work shall be performed by the Contractor at their expense and subject to the approval of the Engineer.

## SP-10 VERIFICATION OF WORK

In addition to the procedure for verification of work performed as described in these Specifications and/or Special Provisions, the Contractor shall lend whatever necessary assistance the Engineer may request with respect to verification of work performed.

## SP-11 UNKNOWN FLOOD CONDITIONS

The flood conditions at the site are unknown. The Contractor should move their equipment accordingly or take precautionary measures to secure the equipment and machinery if a major storm event is anticipated. The Owner shall not be held responsible for any damage that might occur if such flooding event occurs.

## SP-12 CONTRACTOR DELAYS DUE TO UTILITIES

Delays due to work that utilities or third parties perform within the project limits are considered an excusable, non-compensable delay, and will be eligible for extension of the contract time for completion if approved by the Engineer, but will not be eligible for reimbursement or compensation. To request an extension of the contract time due to utilities or third parties, the Contractor shall submit a written request to the Engineer for approval.

SECTION 108.08, BEGIN LINE 547, INSERT AS FOLLOWS:
8. Delays due to work that utilities or other third parties perform within the project limits.

SECTION 108.08, DELETE LINES 563 THROUGH 570 AND INSERT AS FOLLOWS:
The Owner Department will extend the contract time for completion and will pay for delay costs covered under item 1 above in accordance with 104.03.
The Owner Department will make payment for delay costs under item 2 above in accordance with 109.05.2.

SP-13 AFTER OPENING ROAD TO TRAFFIC

The Contractor is to notify the U.S. Post Office, affected fire departments and affected schools, local police agencies and the County Sheriff's Department, copy to the Engineer.

SP-14 PRIOR TO CLOSING ROAD TO TRAFFIC

The Contractor shall notify affected U.S. Post Office, fire departments and affected schools, local police agencies and the County Sheriff's Department, copy to the Engineer. The XG20-5 Closure Signs are to be in place a minimum of one weeks prior to the actual closure.

SP-15 UTILITY INFORMATION

The Contractor shall coordinate the construction of this project with all utilities within the limits of this project in accordance with the Standard Specifications. The pre-construction meeting at the project site **does not** constitute a Utility Location Request by the Owner.

The Contractor and the utility companies shall assume all responsibility. The Owner will not be held liable for any costs involved concerning damages to utility facilities caused by the Contractor's operations. Damage to any of the existing public utilities facilities within the limits of the project caused by the Contractor's operations or equipment shall be repaired or replaced by the Contractor at no expense to the contract.

Once construction is complete, the Contractor shall coordinate with all utilities impacted by this project or listed on the layout sheet when construction of the project is complete. All areas disturbed by utilities shall receive mulched seeding unless otherwise directed by the Engineer.

The cost of this work will not be paid for directly, but the cost thereof shall be included in cost of other items.

The following is provided for information only:

**TELEPHONE:**
Communication facilities, owned by Brightspeed, exist near the project limits, but are not expected to be affected by the proposed construction.

Brightspeed
50 N. Jackson St.
Franklin, IN 46131
Phone: (419) 576-7089
Contact: Eric Flory
Eric.Flory@brightspeed.com

## SP-16 CONSTRUCTION LIMITS

No right-of-way was purchased for this project. This work is being performed within the existing right-of-way, right-of-entries, and the legal drain easement. All work performed by the Contractor shall be undertaken within the construction limits shown. The Contractor shall repair any disturbance of areas outside construction limits to the satisfaction of the Engineer and the affected property owner(s) at the Contractor's expense.

## SP-17 NOTICE TO PROCEED

The Contractor shall start to perform the work on the date designated in the written Notice to Proceed, but no work shall be done at the site prior to the date on the Notice to Proceed. The Owner will issue the Notice to Proceed as soon as possible, but no later than two weeks after the project is awarded.

## SP-18 PRECONSTRUCTION CONFERENCE

Before the Contractor is issued a Notice to Proceed, a conference attended by the Owner, Engineer, Contractor, utilities and others as appropriate will be held. The purpose of this conference will be to discuss procedures for making submittals, processing applications for payment, and to establish other procedures and understandings bearing upon coordination and performance of the work.

The Contractor shall submit the following at, or prior to, the pre-construction meeting:

- Construction schedule
- Specify a project superintendent
- Emergency 24-hour contact

The Contractor shall submit the following documents at the Pre-construction Conference:

- Payment Bond as mentioned elsewhere herein
- Performance Bond as mentioned elsewhere herein
- Certification Letter as mentioned elsewhere herein
- Certificate of Insurance as mentioned elsewhere herein
- Specific Mix Design, Certification, and specification of material required to be submitted as mentioned elsewhere herein

The Contractor shall not be allowed to proceed with any work until all the above-mentioned documents are submitted to the Engineer. Notice to proceed shall be issued as mentioned elsewhere herein and all work / calendar days shall be counted after issuance of Notice to Proceed. This time frame also includes review and approval of any mix design and certification required as mentioned elsewhere herein. The Engineer shall have minimum of 72-hours for review and approval of any mix design submitted.

## SP-19 ROAD CLOSURE

The Contractor and the Owner acknowledge and agree that the time allotted by this agreement for the performance and completion of the work is reasonable and takes into account any and all risks and adverse conditions assumed by the Contractor hereunder.

## SP-20 CLEARING OF RIGHT-OF-WAY TO CONSTRUCTION LIMITS

The Contractor shall remove debris and vegetation within the construction limits shown on the plans and/or the approved right-of-entry areas, as directed by the Engineer, and in accordance with the requirements of Section 201 of the Standard Specifications.

Bare earth shall not be exposed as a result of the clearing. If unauthorized exposure occurs, the area shall be replanted with an approved grass seed mixture at the Contractor's expense. No trees, shrubs, or brush outside the areas shown on the plans shall be disturbed.
Burning shall not be permitted on the project site.

## SP-21 INITIAL PAYMENT FOR CLEARING RIGHT-OF-WAY

The initial payment for clearing right-of-way will be limited to 2% of the original total bid. If the contract lump sum price for clearing right-of-way is greater than 2% of the original total bid, the amount over 2% will be paid when the contract work is 50% complete, or when the clearing work is complete, whichever is later.

## SP-22 RESTORATION OF DISTURBED AREAS

Cavities formed by the removal of shrubs, trees and/or stumps located outside of proposed pavement areas shall be backfilled and compacted with “B” Borrow. Such compaction shall comply with Section 211.04. The top six (6) inches of the backfilled area shall be topsoil in accordance with Section 914.01.

Any roots remaining after all the removal of any designated item shall be removed to a depth of 8 inches below the surface of the surrounding ground area.

The final preparation of these areas shall be in accordance with Section 621.

No direct payment shall be made for this work but shall be included in the cost of other items.

## SP-23 DISPOSAL OF EXCESS MATERIAL

All excess material not to be salvaged (waste) shall be removed from the project site. Whether a private or public waste site is utilized, such disposal shall comply with all Federal, State and local ordinances and permit requirements. A copy of all permits obtained or applied for shall be

submitted to the Engineer prior to the material leaving the site.

The Contractor shall submit, in writing, the location of the proposed dump-site, for approval by the Owner, prior to the commencement of construction.

No direct payment will be made for this work, but the cost thereof shall be included in the costs of the other items of the contract.

SP-24 PROOFROLL

The Contractor shall proofroll the subgrade of the approaching pavement, prior to installing the subgrade treatment, in accordance with section 203.26 of the INDOT Standard Specifications.

Excavation of soft, yielding areas exposed by proofrolling as directed by the Engineer shall be excavated and repaired with compacted aggregate, No. 53, in accordance with section 203 and 301 INDOT Standard Specifications.

The cost of proofrolling shall be included in the cost of other pay items in this contract.

All labor, materials, equipment and other necessary incidental to repair soft, yielding areas exposed by proofrolling will not be paid directly, but the cost thereof shall be included in the cost of other pay items.

SP-25 AGGREGATE FOR END BENT BACKFILL

Aggregate for End Bent Backfill shall be placed at the locations shown on the plans. Aggregate for End Bent Backfill shall be in accordance with Section 211.

All excavation that is required to install aggregate for End Bent Backfill will not be paid for directly, but the cost thereof shall be included in the cost of "Aggregate for End Bent Backfill".

SP-26 GALVASHIELD XP2

| |
|---|
| Note to Specifier: This document is intended to provide assistance in developing a specification for the use of embedded zinc anodes and should be modified as appropriate to accommodate project specific conditions and applications. For additional information, contact Vector Corrosion Technologies. |

Galvashield® XP2 - Anode Type 1A - galvanic anodes embedded within concrete repairs to provide corrosion prevention.

SECTION 03700 – EMBEDDED GALVANIC ANODES

PART 1 GENERAL

1.1 Related Documents

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 Summary

A. This Section includes furnishing all labor, tools, materials, equipment and services necessary to properly install embedded galvanic anodes.

B. Embedded galvanic anodes are designed to provide localized corrosion protection. When placed at the appropriate spacing along the perimeter of concrete repairs or along the interface between new/existing concrete, the anodes mitigate corrosion and the formation of new corrosion sites in the adjacent existing concrete.

1.3 References

A. ACI Repair Application Procedure (RAP) Bulletin 8 – Installation of Embedded Galvanic Anodes

B. ACI Guideline No. 222 – Corrosion of Metals in Concrete

C. ACI 562 - Code Requirements for Evaluation, Repair and Rehabilitation of Concrete Buildings

D. ASTM B418– Standard Specification for Cast and Wrought Galvanic Zinc Anodes

E. ICRI Guideline 310.1R - Guide for Surface Preparation for the Repair of Deteriorated Concrete resulting from Reinforcing Steel Corrosion

F. ISO 12696 – Cathodic Protection of Steel in Concrete

*Note to Specifier: Vector provides a standard limited warranty against defects in materials and workmanship of the manufactured product. This is included in the standard terms of sale and can be downloaded from the Vector website at www.vector-corrosion.com/warranty.pdf.*

*An extended limited project-specific warranty is also available that covers anode activity over a five year period. Eligible projects shall be professionally designed by a licensed architect or engineer and include manufacturer supplied site training.*

1.4 Manufacturer Extended Limited Warranty

A. Contractor shall provide a Limited Warranty with a notarized signature from a corporate officer of the anode manufacturer.

B. The Limited Warranty shall state the following:

1. The published anode spacing guidelines for anode size and spacing are based on an estimated minimum 20-year anode service life in the environment it is installed.

2. The galvanic anodes will remain electrochemically active and produce galvanic current in relation to the environment in which it is installed for a minimum of 5 years from the date of anode installation.

3. The anode unit, including its constituents, does not include intentionally added substances that may cause corrosion to reinforcing steel over the life of the structure.

4. The galvanic anodes meet all building and repair code requirements.

*Note to Specifier: If the project designer or owner requires that the anode manufacturer provides an experienced corrosion technician for on-site contractor training, or if an extended warranty will be required (per Section 1.4) include the language in Section 1.5.*

1.5. Anode Manufacturer Corrosion Technician

A. The contractor will enlist and pay for a technical representative employed by the galvanic anode manufacturer to provide training and on-site technical assistance during the initial installation of the galvanic anodes. The technical representative shall be a NACE-qualified corrosion technician (NACE CP2 Cathodic Protection Technician or higher).

B. The qualified corrosion technician shall have verifiable experience in the installation and testing of embedded galvanic protection systems for reinforced concrete structures.

C. The contractor shall coordinate its work with the designated corrosion technician to allow for site support during project startup and initial anode installation. The corrosion technician shall provide contractor training and support for development of application procedures, verification of electrical continuity, and project documentation.

PART 2 PRODUCTS

2.1 Embedded Galvanic Anodes

*Note to Specifier regarding Anode Nomenclature:*

*Type: Anode Type is a two-character code*

*The first character indicates where the anode is installed:*

*1 - Embedded in concrete repairs, or*

*2 - Embedded into sound concrete.*

*The second character denotes the type of zinc activation utilized:*

*A - Alkali-activated using high pH, or*

*H - Halide-activated using corrosive salts.*

Embedded galvanic anodes shall be Anode Type 1A with the following nominal dimensions: 32 x 34 x 100 mm (1.25 x 1.34 x 4 in.). The anodes shall be pre-manufactured with zinc in compliance with ASTM B418 Type II cast around an integral, unspliced, uncoated, non-galvanized double loop steel tie wire and encased in a highly alkaline cementitious shell with a pH of 14 or greater.

The galvanic anodes shall be alkali-activated and shall contain no intentionally added chloride, bromide or other constituents that are corrosive to reinforcing steel as per ACI 562. The anode size and spacing shall deliver a minimum current density to the steel adjacent to the repair of [0.4mA/m2 (0.04mA/ft2)] [0.8mA/m2 (0.07mA/ft2)] [1.6mA/m2 (0.15mA/ft2)] for the 20-year design life taking into account an anode aging factor calculated from previous field installations and the in-service environment.

*Note to Specifier regarding Anode Spacing: Anode spacing is dependent upon the reinforcing steel density, the level of corrosion risk (i.e. amount of chloride and the corrosively of the local environment, etc). Typical spacing for Galvashield XP2 ranges from 13 -28 in. (325-700 mm).*

*The published anode spacing tables for the Galvashield XP Product Line (December 2021 edition) are based on achieving a minimum current density to steel adjacent to the repair for 20 years in environments with average annual temperatures 10-15°C (50-60°F). To achieve this, a galvanic anode aging factor of 12.5-year is utilized.*

| ***Corrosion Risk Category*** | ***Chloride Level*** | ***Minimum Current Density*** |
|---|---|---|
| *Low to Moderate* | *<0.8%* | *0.4mA/m2 (0.04mA/ft2)* |
| *High* | *0.8%-1.5%* | *0.8mA/m2 (0.07mA/ft2)* |
| *Extremely High* | *>1.5%* | *1.6mA/m2 (0.15mA/ft2)* |

*Cold and/or drier conditions will reduce the anode current. In warmer or more corrosive conditions such as marine exposure, Galvashield XPX is recommended to achieve the 20-year anode life.*

Embedded galvanic anodes shall be Galvashield XP2 available from Vector Corrosion Technologies (www.vector-corrosion.com) USA (813) 830-7566, Canada (204) 489-9611, UK +44 (0) 1384 671414 or approved equal.

Application for approved equals shall be requested in writing two weeks before submission of

project bids. Application for galvanic anode approved equals shall include verification of the following information:

1. The zinc anode is alkali-activated with an alkaline cementitious shell with a pH of 14 or greater.
2. The galvanic anode shall contain no intentionally added constituents which are corrosive to reinforcing steel, e.g. chloride, bromide, etc.
3. The anode manufacturer shall provide documented performance data from field installations showing that the anodes have remained active for a minimum of 20 years in service and meet the ISO 12696 Cathodic Prevention Standard.
4. Project design calculations showing that the minimum specified current density to reinforcing steel adjacent to the repair will be achieved 20 years after installation. The design calculations shall take into consideration expected in-service temperature and humidity conditions in the environment in which the anodes are to be placed in service and use a galvanic anode aging factor derived from field monitoring for at least one anode aging step (time until the current halves). [The aging factor for Galvashield is 12.5 years at average annual temperature of 10-15oC (50-60oF)]
5. The galvanic anode shall have been used in a minimum of ten projects of similar size and application.
6. The galvanic anode units shall be supplied with solid zinc core (ASTM B418) cast around an uncoated, non-galvanized, non-spliced steel tie wire for wrapping around the reinforcing steel and twisting to provide a durable steel-to-steel connection between the tie wire and the reinforcing steel.
7. The anode manufacturer shall provide third party product evaluation, such as from Concrete Innovations Appraisal Service, BBA, etc.

*Note to Specifier regarding Repair Materials:*

*Per ISO 12696, electrical resistivity and mechanical properties of the repair material shall be compatible with the original concrete. Repair materials typically should have an electrical resistivity of one-half to two times the resistivity of the parent concrete when measured under the same condition.*

2.2 Repair Materials

A. Use an ionically conductive, cement-based repair mortar or concrete. Non-conductive repair materials such as epoxy, urethane, or magnesium phosphate shall not be permitted. Insulating materials such as epoxy bonding agents shall not be used unless otherwise called for in the design.

B. If repair materials have a saturated bulk resistivity of 50,000 ohm-cm or greater, pack Galvashield® Embedding Mortar or another repair mortar with a resistivity of 15,000 ohm-cm or less between the anode and the substrate to provide an ionically conductive path to the substrate.

2.3 Storage

Deliver, store, and handle all materials in accordance with manufacturer's instructions. Anode units shall be stored in dry conditions in the original unopened containers in a manner to avoid exposure to extremes of temperature and humidity.

PART 3 EXECUTION

3.1 Concrete Removal

A. Remove loose or delaminated concrete.

B. Undercut all exposed reinforcing steel by removing concrete from the full circumference of the steel as per ICRI R310.1R. The minimum clearance between the concrete substrate and reinforcing steel shall be ¾ inch (19 mm) or ¼ inch (6 mm) larger than the top size aggregate in the repair material, whichever is greater.

C. Concrete removal shall continue along the reinforcing steel until no further delamination, cracking, or significant rebar corrosion exists and the reinforcing steel is well bonded to the surrounding concrete as per ICRI R310.1R.

3.2 Cleaning and Repair of Reinforcing Steel

A. Clean exposed reinforcing steel of rust, mortar, etc. to provide sufficient electrical connection and mechanical bond.

B. If significant reduction in the cross section of the reinforcing steel has occurred, replace or install supplemental reinforcement as directed by the engineer of record.

C. Secure loose reinforcing steel by tying tightly to other bars with steel tie wire.

D. Verify electrical continuity of all exposed reinforcing steel, including supplemental steel, as per Section 3.4.E.

E. If the reinforcing steel is to receive a barrier coating, do not coat the reinforcing steel within 1 in. (25mm) of the anode and do not apply coating to any surface of the anode or the steel tie wires.

3.3 Edge and Surface Conditioning of Concrete

A. Concrete repairs shall be square or rectangular in shape with squared corners per ICRI Guideline 310.1R.

B. Saw cut the repair boundary ½ inch (13 mm) deep or less if required to avoid cutting reinforcing steel.

C. Create a clean, sound substrate by removing bond-inhibiting materials from the concrete substrate by high pressure water blasting or abrasive blasting.

3.4 Galvanic Anode Installation

A. Install anode units and repair material immediately following preparation and cleaning of the steel reinforcement.

*Note to Specifier: Galvanic anodes can be used at the interface of new and old concrete to provide targeted protection around the perimeter of repairs and slab replacements or at the interface of new and old concrete such as joint repairs, structure widening/extension, etc.*

*In some cases, it is preferred to use anodes on a grid pattern throughout the entire repair area for more complete protection. Examples may include partial depth repair where a second mat of steel remains in chloride contaminated concrete, or where all steel in the patch area should be protected due to low cover or corrosive exposure conditions.*

B. Galvanic anodes shall be installed along the perimeter of the repair or the interface between new and old concrete at a maximum spacing of 17.75 in.

C. Place the galvanic anodes as close as possible to the interface with the parent concrete [maximum 4 in. (100mm)] while still providing sufficient clearance between anodes and substrate to allow the repair material to fully encase the anode.

1. Place the anode such that the preformed BarFit™ groove fits along a single bar or at the intersection between two bars and secure to each clean bar.

2. If less than 1 in. (25 mm) of concrete cover is expected, place anode beneath the bar and secure to clean reinforcing steel or increase the size of the repair cavity to accommodate the anodes.

D. Wrap the tie wires around the clean reinforcing steel at least one full turn in opposite directions and bring the two free ends together and twist tight to create a secure electrical connection that will not allow anode movement during concrete placement.

E. Electrical Continuity

1. Confirm electrical connection between anode tie wire and reinforcing steel by measuring DC resistance (ohm □) or DC potential (mV) with a multi-meter. Electrical connection is acceptable if the DC resistance measured with the multi-meter is 1 □ or less or the DC potential is 1 mV or less.

2. Confirm electrical continuity of the exposed reinforcing steel within the repair area. Electrical continuity shall be established by tying discontinuous steel to continuous steel using steel tie wire when necessary. Electrical continuity within the repair area is acceptable if the DC resistance measured with multi-meter is 1 ⍰ or less or the potential is 1 mV or less.

3.5 Concrete or Mortar Replacement

A. If the repair procedures require the concrete surface to be saturated with water, do not damage the anode nor allow the anode units to be soaked for greater than 20 minutes.

B. Complete the repair with the repair material, taking care not to damage, loosen or leave voids around the anode.

| |
|---|
| *Note to Specifier regarding Concrete or Materials Replacement:*<br><br>*If it is required that the anode be exposed to water for more than 20 minutes up to 48 hours, please refer to Galvashield XP2 Marine.* |

END OF SECTION

SP-27 SAW CUTTING OF PAVEMENT

In locations where new pavement abuts the existing pavement edge, full depth saw cutting shall be required. The existing pavement shall be saw cut a uniform flush edge with the new pavement. The saw cut shall be thoroughly flush with the new pavement and cleaned in its entire length.

The saw cut work will not be paid for directly, but the cost thereof shall be included in the cost of the various pay items.

SP-28 PRESENT STRUCTURE, REMOVE PORTIONS

Portions of the structure, as shown on the plans, shall be removed in accordance with section 202.03 of the Standard Specifications. All materials shall become the property of the Contractor and be removed from the site and properly disposed of in accordance with the Standard Specifications.

All labor, materials, equipment, and incidental work necessary to perform this work, shall be included in the pay item “Present Structure, Remove Portions”, and will be paid for as a lump sum.

SP-29 PROOFROLL

The Contractor shall proofroll the subgrade of the approaching pavement, prior to installing the

subgrade treatment, in accordance with section 203.26 of the INDOT Standard Specifications.

Excavation of soft, yielding areas exposed by proofrolling as directed by the Engineer shall be excavated and repaired with compacted aggregate, No. 53, in accordance with section 203 and 301 INDOT Standard Specifications.

The cost of proofrolling shall be included in the cost of other pay items in this contract.

All labor, materials, equipment and other necessary incidental to repair soft, yielding areas exposed by proofrolling will not be paid directly, but the cost thereof shall be included in the cost of other pay items.

## SP-30 TIMEFRAME FOR PLACEMENT OF SHOULDER MATERIAL

On streets or street sections where the placement of new Hot Mix Asphalt (HMA) surface course has been completed, the placing of shoulder material shall commence within a one (1) week period. On streets which will receive shoulder prior to the surface course, the placing of shoulder material shall commence within one (1) week period following the completion of the base or intermediate courses.

## SP-31 MAINTENANCE OF TRAFFIC

The Contractor shall be responsible for installing and maintaining all construction signs and traffic control items to properly close the roadway and mark the detour routes. The Contractor shall be responsible for ensuring that the signs and barricades are in working order and have not been damaged each day of operations.

Construction signs shall be placed in accordance with the Indiana Manual of Uniform Traffic Control Devices.

All labor, materials, equipment, and incidental work necessary to perform this work, shall be included in the pay item “Maintaining Traffic”.

## SP-32 MATERIAL ACCEPTANCE

All aggregate, ready mixed concrete, and HMA materials used for the project shall be produced from a supplier listed on the INDOT Approved Materials List. The Contractor shall submit the names and addresses of the suppliers of these materials for the project to the Engineer at the pre-construction conference.

## SP-33 TESTING OF MATERIALS

The Contractor shall be responsible for performing all quality control sampling and testing. The frequency for such testing and sampling shall be as specified in the INDOT Manual for Frequency

of Sampling and Testing and Basis for Use of Materials Parts One and Two. This work shall be the sole responsibility of the Contractor and will not be paid for separately but included in the cost of other items in accordance with the itemized bid.

The Contractor shall provide copies of each sampling and testing report to the Engineer on the day such work was completed or performed. Failure to provide these reports in a timely manner shall permit the Engineer to withhold progress estimates until such time as the reports are received by the Engineer.

Borrow or B Borrow:
The Contractor shall determine the location of the borrow pit and shall have laboratory density tests made as prescribed in Section 203.24 of the Standard Specifications and outlined in AASHTO T-99.

Concrete:
The Contractor shall test the concrete in the bridge foundations as set out in the Indiana Department of Transportation's Manual for Frequency of Sampling and Testing and Basis for Use of Materials. Additional testing may be required, as conditions warrant.

HMA:
The Contractor shall provide proof that all HMA material used shall be of State tested material and on immediate usage basis.

Reinforcing Steel:
The Contractor shall furnish the Engineer with two (2) copies of certified mill test reports. Reinforcing steel shall comply with the requirements set out in Section 910.01 of the Standard Specification. Grade 60 reinforcing steel shall be used.

# PROJECT BID FORMS

| | **Adams County Bridge #142 Rehabilitation** | | | **2023-05** | |
|---|---|---|---|---|---|
| | | **U/M** | **Quantity** | **Unit Price** | **Subtotal** |
| 1 | CONSTRUCTION ENGINEERING | LSUM | 1 | | |
| 2 | MOBILIZATION AND DEMOBILIZATION | LSUM | 1 | | |
| 3 | CLEARING RIGHT-OF-WAY | LSUM | 1 | | |
| 4 | PAVEMENT REMOVAL (UNDISTRIBUTED) | SYS | 34 | | |
| 5 | PRESENT STRUCTURE, REMOVE PORTIONS, STRUCTURE NO. | LSUM | 1 | | |
| 6 | EXCAVATION, COMMON | CYS | 200 | | |
| 7 | EXCAVATION, FOUNDATION, UNCLASSIFIED | CYS | 30 | | |
| 8 | SUBGRADE TREATMENT, TYPE IC | SYS | 160 | | |
| 9 | AGGREGATE FOR END BENT BACKFILL | CYS | 26 | | |
| 10 | GEOTEXTILE FOR PAVEMENT TYPE 2B | SYS | 294 | | |
| 11 | SUBBASE FOR PCCP | CYS | 34 | | |
| 12 | COMPACTED AGGREGATE, NO. 53 | TON | 12 | | |
| 13 | MILLING, TRANSITION | SYS | 440 | | |
| 14 | QC/QA-HMA, 3, 58S, SURFACE, 9.5 mm | TON | 50 | | |
| 15 | QC/QA-HMA, 3, 58S, INTERMEDIATE, 19.0 mm | TON | 22 | | |
| 16 | QC/QA-HMA, 3, 58S, BASE, 25.0 mm | TON | 54 | | |
| 17 | JOINT ADHESIVE | LFT | 60 | | |
| 18 | VOID REDUCING ASPHALT MEMBRANE FOR HMA | LFT | 240 | | |
| 19 | ASPHALT FOR TACK COAT | SYS | 920 | | |
| 20 | GUARDRAIL, RESET | LFT | 425 | | |
| 21 | REINFORCED CONCRETE BRIDGE APPROACH, 12 IN. | SYS | 134 | | |
| 22 | REINFORCING BARS, EPOXY COATED | LBS | 12,797 | | |
| 23 | REINFORCING BARS, EPOXY COATED (UNDISTRIBUTED) | LBS | 300 | | |
| 24 | EMBEDDED GALVANIC ANODE | EACH | 40 | | |
| 25 | THREADED TIE BAR ASSEMBLY, EPOXY COATED | EACH | 28 | | |
| 26 | CONCRETE, C, SUPERSTRUCTURE | CYS | 26.8 | | |
| 27 | SURFACE SEAL | LSUM | 1 | | |
| 28 | PATCHING CONCRETE STRUCTURES | SFT | 100 | | |
| 29 | JACKING AND SUPPORTING, BEAMS | LSUM | 1 | | |
| 30 | PIPE, END BENT DRAIN, 6 IN. | LFT | 96 | | |
| 31 | GEOTEXTILE FOR UNDERDRAINS, TYPE 3 | SYS | 64 | | |
| 32 | HYDRODEMOLITION | SYS | 457 | | |
| 33 | BRIDGE DECK OVERLAY, BUDGET | $ | 7,850 | | |
| 34 | BRIDGE DECK, REMOVE EXISTING CONCRETE SURFACE | SYS | 457 | | |
| 35 | BRIDGE DECK PATCHING, FULL DEPTH | SFT | 205 | | |
| 36 | BRIDGE DECK OVERLAY, RIGID | SYS | 457 | | |
| 37 | BRIDGE DECK PATCHING, PARTIAL DEPTH | SFT | 617 | | |

| | | | | | |
|---|---|---|---|---|---|
| 38 | OVERLAY DAM | SFT | 52 | | |
| 39 | BEARING ASSEMBLY ELASTOMERIC | EACH | 10 | | |
| 40 | ROAD CLOSURE SIGN ASSEMBLY | EACH | 4 | | |
| 41 | CONSTRUCTION SIGN, A | EACH | 8 | | |
| 42 | MAINTAINING TRAFFIC | LSUM | 1 | | |
| 43 | BARRICADE, III-A | LFT | 72 | | |
| | | | | Base Bid | |