ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT EQUIPMENT AND PROCUREMENT DIVISION BID INVITATION

| ck, AR 72209 Inditions on Page 2 of this Be the above-noted bid opening to the considered. If the above-noted bid opening to the considered. If the and agrees to furnish any the considered or Print (Type or Print): | g location. Bids m | e received at the | e Rock, AR 72209 e above-noted mail and tted on this form, with |
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| Quar | ntity Unit | Unit Price | Amount |
| ent either in whole e conditions. The y the Laws of the S ders at time of bid not acceptable as e required of succe by checks are red Invitation. | and by this detail herein. conditions here or in part, so parties heret state of Arka copening or a Bid Bond essful bidder not accepta | rein shall to unsas. bid will ls. See prior to able as | |
| | nent either in whole se conditions. The y the Laws of the State at time of bid not acceptable as the required of successive checks are and Invitation. ID FORM MUST Experiments of the AHTD Web State within 72 hours are conditions. | nent either in whole or in part, so se conditions. The parties here by the Laws of the State of Arkalders at time of bid opening or not acceptable as Bid Bond e required of successful bidder by checks are not acceptable definition. ID FORM MUST BE SUBMIT of the AHTD Web Site — dities and Services Bids/Contrassite within 72 hours after bid of the AHTD with the site of the sit | e required of successful bidder prior to ny checks are not acceptable as d Invitation. ID FORM MUST BE SUBMITTED. |

STANDARD BID CONDITIONS

H-14-277P

- 1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
- 2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
- BID BONDS AND PERFORMANCE BONDS: If required, a Bid Bond in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. Personal and company checks are not acceptable as Bid Bonds. Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a Performance Bond in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. Personal and company checks are not acceptable as Performance Bonds. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U.S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
- 4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.
- 5. "ALL OR NONE" BIDS: Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
- 6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
- 7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
- 8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
- FREIGHT: All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission
 will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be
 furnished.
- 10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
- 11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
- 12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
- 13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
- 14. **ETHICS:** "It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business." (Arkansas Code, Annotated, Section 19-11-708).

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT CONTRACT FOR CONCRETE PAVEMENT LEVELING $\underline{\text{BID FORM}}$

| CONTRACT NO. H-14-277P | BIDDER | |
|--|--------|--------|
| Prices bid herein are subject to discount of | | _days. |

| ITEM | M NO. ITEM | UNIT | UNIT PRICE | |
|------|--|---------|------------|--|
| 1. | Polyurethane for Raising and Undersealing [max. depth below slab – three (3) inch (0.25 ft.)] | per lb. | | |
| 2. | Polyurethane for Raising/undersealing/ void fill/stabilize and left bridge approach [depth below slab greater than three (3) inch (0.25 ft.)] | per lb. | | |
| 3. | Sawing Relief Joints | Lin Ft. | | |
| 4. | Maintenance of Traffic (Day) | Each | | |
| 5. | Maintenance of Traffic (Night) | Each | | |

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation (Department) complies with the Americans with Disabilities Act of 1990, Section 504 of Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and other federal equal opportunity laws and therefore does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in admission or access to and treatment in Department programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden, Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address:

Joanna.Mcfadden@arkansashighways.com.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

RAISING, UNDERSEALING AND STABILIZING PORTLAND CEMENT CONCRETE PAVEMENTS AND BRIDGE APPROACH SLABS

<u>DESCRIPTION:</u> This item shall consist of raising, undersealing and stabilizing portland cement concrete pavements and bridge approach slabs at locations shown on the plans or designated by the Engineer. This work shall include drilling injection holes, placing of material, testing and surveying to control the lift of the pavement, cleanup, and other related work.

The work shall be statewide.

The Contract shall be limited to a one year period from the beginning of the month following the award of the Contract.

The total amount of polyurethane estimated to be used during the term of this contract will be as needed. The Department reserves the right to cancel the Contract before the one year term of the contract or limit the amount of polyurethane.

The Contractor shall assume full liability for traffic hazards that might be created by his/her operation and save harmless the Arkansas State Highway and Transportation Commission in all respects.

CONTRACTOR PRE-QUALIFICATION REQUIREMENTS: The contractor and field supervisor assigned to this project shall have a minimum of three years of experience in performing pavement lifting and soil densification using polyurethane foam and a minimum of 20 projects on which the contractor and field supervisor assigned to this project have successfully performed this type of work. Prior to beginning work, the contractor shall submit certification to the engineer that the contractor meets the minimum required experience. The certification shall include a listing of previous clients with contact names and phone numbers.

<u>MATERIAL</u>: The material for raising, filling voids, undersealing, or densification of base and sub-base soils shall be a water blown, closed cell, high density polyurethane system with the following physical characteristics and properties:

A. PROPERTIES

| Technical Property | Requirements |
|--|---|
| Density, min., per ASTM D1622 (air rise) | 3.0 lbs/ft³ (48kg/m³) |
| Compressive strength, min., per ASTMD 1621 | 40 psi (276 kPA) |
| Density, max., per ASTM D1622 (air rise) | 3.2 lbs/ft ³ (51 kg/m ³) |
| Curing Rate | 90 percent of compressive strength within 15 |
| | minutes after injection |

The material shall be a high-density polyurethane material, such as URETEK 486 STAR or equivalent, as approved by the engineer. The material shall be a polyurethane-forming mixture, having water insoluble diluents, which permit the formation of polyurethanes in excess water. The presence of these water insoluble diluents provides polyurethane foam with improved dimensional stability properties. This formula and these characteristics must be certified by the manufacturer.

The material shall have a warranty against shrinkage and deterioration for a period of ten years. During the warranty period, the manufacturer shall replace by injection any failed material at the manufacturer's expense.

Acceptance of the polyurethane material will be based on certification and results from tests required by the engineer.

The contractor shall provide to the engineer certification from the manufacturer stating that the material provided meets this special provision. The MSDS for all pertinent production material shall be included with the certification.

B. APPLICABLE DOCUMENTS

ASTM Test Methods

Type Test ASTM Designation

Compressive Strength D1621

Water Absorption D2842

Density D1622

Dimensional Stability D2126

Flexural Strength D790

Fungus Resistance G21

Coefficient of Expansion D696

Shear Strength C273

Solvent Resistance D543

EQUIPMENT: The minimum list of equipment required shall be as listed below and shall not preclude the use of additional equipment.

A. A drill, capable of drilling 9/16 to 3/4 inch diameter injection holes through the pavement without damaging the structural integrity of the existing pavement.

- B. A self contained pumping unit capable of storing, proportioning, blending, and injecting the polyurethane formulation under the concrete pavement. The equipment will be of size and nature to control the rate of rise of the pavement.
- C. Pumping units shall be equipped with a manufacturer's certified flow meter to measure the amount of high-density polyurethane injected at each location. The certified flow meter shall have a digital output in both pounds and gallons.
- D. Pressure and temperature control devices capable of maintaining proper temperature and proportionate mixing of the polyurethane component materials.
- E. A laser leveling unit, straight edge or stringline to ensure that the concrete is raised to an even plane and/or to the required elevation.

CONSTRUCTION METHODS: The Contractor will be required to begin work within thirty (30) calendar days of notification from the AHTD Maintenance Engineer that work is required and will be notified in writing each time it is necessary to perform work. A list will be enclosed with the notification which includes the location and length of each installation. This list will be an estimate only and may be adjusted once work begins. The outlined work must begin within 30 days of the written notice and must be completed within 30 days of beginning the work. When the Contractor completes all of the specified work at a location, an inspection will be made.

The Department will guarantee to make available to the Contractor work requiring at least an estimated 5,000 lbs. of polyurethane each time he/she is notified to perform work. The number of times the Contractor will be notified to perform work and the amount of work to be performed each time will depend on the total volume of work during the contract period. The work required under each notification will be confined to either one Department District or two or more adjacent Districts to achieve the minimum estimated quantity of 5,000 lbs..

All drill tailings, excess polyurethane material and other debris shall be cleaned up at the end of each working day or before the lane is opened to traffic. When adjacent lanes are open to traffic, provisions shall be made to prevent material from encroaching onto the open lane or squirting onto passing vehicles. Polyurethane material shall not enter into gutters or closed drainage systems. Suitable means to restrict the infiltration of the residue into a closed drainage system shall be provided. Polyurethane material shall be removed from the pavement surface before any residue is blown by traffic action or wind. All removed material shall be disposed of in an environmentally acceptable manner in accordance with all federal, state and local regulations.

Corrections to the grade of adjacent slabs, if necessary, or as determined by the engineer, shall be made in accordance with this special provision. All raised pavement shall match the existing grade of adjacent slabs to provide positive drainage. Final elevations of raised pavement areas shall be within ¼ inch (0.02 FT) of the required elevations as determined by the profile or the engineer.

The contractor will be responsible for any pavement blowouts, excessive pavement lifting or pavement damage that may occur as a result of the contractor's work. The contractor shall repair any subject areas to the satisfaction of the engineer at the contractor's expense.

The roadway may be open to traffic within 15 minutes of final injection when the polyurethane material has reached 90 percent of the material's designed compressive strength.

Work to raise, underseal and stabilize portland cement pavement under this item shall not be performed when pavement surface temperatures are below 35° F or if the subgrade and/or base course material is frozen.

In the event the Engineer determines that continued material placement at any specific location is no longer economically feasible, he may direct the Contractor to cease at that location.

The construction methods outlined above may be modified by the Engineer as field conditions dictate.

The Contractor shall use such approved measures as are necessary to keep all pavement surfaces adjacent to the actual operation in progress reasonably clean at all times.

The pavement, including adjacent shoulders, shall be cleaned to the satisfaction of the Engineer prior to the placement of traffic on the work area.

RAISING AND UNDERSEALING: The 9/16 to 3/4 inch diameter holes shall be drilled in the concrete slab in the following manner: A series of holes shall be drilled at six to eight foot intervals throughout the concrete slab.

These holes shall be drilled to a depth sufficient to penetrate the concrete pavement or deeper, as directed by the Engineer. Subsurface penetration shall not exceed 3 inches below the base of the slab. When drilling holes, the drills shall be held as nearly perpendicular as possible to the pavement surface. No more holes shall be drilled during a day's operations than can be filled during the same day, unless specific approval is given by the Engineer. Irregular or unsatisfactory holes which cannot be satisfactorily used shall be filled and new holes shall be drilled. An air drill may be substituted for the electric drill.

The Contractor shall exercise sufficient precautions during all operations to insure that slabs are not broken or cracked. Slabs that are locked and will not lift shall be released by making a full-depth transverse saw cut as directed by the Engineer. Any slab that develops a crack that extends through the drill hole will be considered to have been damaged during the process of the work and it shall be repaired or replaced at no cost to the Department. Repair or replacement will be in accordance with techniques approved by the Engineer.

The Contractor shall perform adequate surveys of the areas proposed for regrading to determine the existing profile grade line elevations. The Contractor shall use this data to develop and present to the Engineer for approval a proposed revised profile grade line. The revised profile grade line shall be approved prior to beginning any work on an area designated for regrading. The approved revised profile grade line shall then be used to guide the leveling of each area proposed for regrading.

The polyurethane shall then be injected under the slab. The amount of rise shall be controlled by the pumping unit and injection gun, by measuring the rate of injection of the polyurethane material. The Contractor shall be responsible for any excessive or uneven pavement movement and shall replace or repair any damaged areas as directed by the Engineer. When the injection nozzle is removed from the hole, any excessive polyurethane material shall be removed from the area and the hole sealed with the polyurethane material or a quickset concrete patch.

STABILIZATION: Pumping of polyurethane shall continue until the slab just begins to move. All holes will be pumped to fill voids under the slab. Leveling the slab is not the intention of the stabilization operation.

METHOD OF MEASUREMENT: The polyurethane material shall be measured by the pound of material actually placed using weigh tickets and/or a certified flow meter approved by the Engineer.

BASIS OF PAYMENT: Polyurethane for raising, undersealing and stabilization. Work completed and accepted and measured as provided above will be paid for at the contract unit price bid per pound for Polyurethane for raising, undersealing and stabilizing which price shall be full compensation for drilling, temporary plugging, and final sealing of holes in the concrete slabs; for securing and furnishing all materials including all royalty, freight, and storage involved; for pumping the material into the voids under the concrete slabs; for clean up and for all labor, tools, equipment and incidentals necessary to complete the work.

PAYMENT WILL BE MADE UNDER:

| | Pay Item | Pay Unit |
|----|---|----------|
| 1. | Polyurethane for Raising and Undersealing PCC Concrete Slab [max depth below slab – three (3) inch (0.25 ft.)] | Pound |
| 2. | Polyurethane for Raising/undersealing/void fill/stabilize subgrade and lift bridge approach [depth below slab greater than three (3) inch (0.25 ft.)] | Pound |
| 3. | Concrete sawing | Lin. Ft. |
| 4. | Traffic Control – day | Day |
| 5. | Traffic Control – night | Night |