

CLINTON COUNTY ROAD COMM.

3536 S. US Highway 27

Saint Johns, MI 48879

ASPHALT BASE CRUSHING & SHAPING, ASPHALT BASE RECLAMATION

BID SPECIFICATION

Sealed bids will be received at the office of the Clinton County Road Commission at 3536 S. US Highway 27, St. Johns, Michigan, until *10:00 a.m. on February 21, 2018* for furnishing the 2018 annual requirement of "Asphalt Base Crushing & Shaping, asphalt base reclamation" at various locations in Clinton County.

Prices are to be indicated on this sheet and submitted in a **SEALED ENVELOPE** marked "ASPHALT BASE CRUSHING & SHAPING, ASPHALT BASE RECLAMATION" and shall include the **NAME OF THE BIDDER ON THE ENVELOPE**.

\_\_\_\_\_  
Bidder

\_\_\_\_\_  
Address

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Email

TITLE VI – The CLINTON COUNTY ROAD COMMISSION in accordance with Title VI of the Civil Rights Act of 1964, 78-252, 42 U.S.C. 2000d-2222d-4, the Civil Rights Act of 1987, P.L. 100-259, and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, Part 21, Non-discrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, Disadvantaged Business Enterprise firms will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of Race, Color, Sex, Age, National Origin, or Handicap in consideration for an award.

The undersigned has examined the specifications and the location of the work described herein and is fully informed as to the nature of the work and the conditions related to its performance, and understands that the quantities shown are approximate only, and are subject to either increase or decrease.

The undersigned hereby proposes to furnish all necessary machinery, tools, apparatus, and other means of construction, do all the work, furnish all the materials, and for the unit prices named in the itemized bid, to complete the work herein described in strict accordance with the plans therefore and in strict conformity with the requirements of the most recent edition of the MDOT Specifications for Construction and any attached supplemental specifications that may be a part of this proposal.

The bidder will be responsible for CDL compliance of any and all employees/sub-contractors used in fulfilling the bituminous paving operations as specified in this document.

The undersigned further proposes to do such extra work as may be authorized by the Clinton County Road Commission, prices for which are not included in the itemized bid. Compensation shall be made on the basis agreed upon before such extra work has begun.

The undersigned has included a listing of three references of previous work experience including the company name, address, phone number, and contact person.

The undersigned encloses a certified or cashiers check on an open, solvent bank in the amount of 5% of the total amount of the bid, payable to the Clinton County Road Commission as a guarantee of good faith. If the undersigned is successful bidder and fails to enter into a contract, or furnish satisfactory bonds to the Clinton County Road Commission, within 15 days after being notified as such, the bid deposit shall be forfeited to the Clinton County Road Commission as liquidated damages. It is understood that the bid deposit of the successful bidder will not be returned until the contract work has been completed and that the bid deposits of all except the successful bidder will be returned promptly.

The successful bidder will be required to furnish contract bonds as specified in referenced MDOT specifications. These bonds are to be submitted on standard forms provided by the surety company. The completion date for these projects will be **September 1, 2018**. Liquidated damages will be assessed for failure to complete projects by this date in accordance with MDOT specifications. This contract will be awarded to the successful bidder within 30 days from the date of bids. The Clinton County Road Commission shall have the right to reject any or all bids and to accept the bid that is in their opinion in the best interest of the road commission.

#### DESCRIPTION

This work shall consist of crushing and shaping the existing asphalt surface into an aggregate base course. Some projects to also include stabilization. This work will include all necessary labor, equipment and material to perform the following:

- A. Existing Bituminous Surfaces - This work shall be accomplished in place and shall consist of crushing an existing bituminous, gravel, sealcoat surface to the depth specified, combining this crushed material with a portion of the underlying aggregate base, where specified blending this combined material with hot asphalt cement, shaping to the proper elevation and slope and compacting to the proper density.
- B. Existing Aggregate Surface - This work shall be accomplished in place and shall consist of blending an existing aggregate surface with hot asphalt cement, shaping to the proper elevation and slope, and compacting to the proper density.

#### MATERIALS

The bituminous material shall be as follows:

Asphalt Cement - PG 52-28 or equivalent

Asphalt Emulsion – Fortress or equivalent

The bituminous material for stabilizing shall be applied at the rate as determined by the Engineer, so that the residual bitumen added will be between two (2) and five (5) percent by weight of the bituminous material. The temperature of the asphalt cement for stabilizing shall be applied at a minimum of 350°F. The temperature of the asphalt emulsion shall be applied as per the manufacturer's recommendations.

## EQUIPMENT REQUIREMENTS

1. Compaction Equipment - Adequately sized, self-propelled rubber tired and vibratory steel compactors shall be used as directed by the Engineer.
2. Crushing Equipment - The crushing shall be done in place. The equipment shall be a bi-directional rotary reduction machine capable of operating in either an up cut or down cut mode to insure reducing the existing asphalt to the specified size and gradation. The forward speed and depth of cut shall be automatically, as well as manually, controllable to produce a consistent gradation. The machine shall be of a type designed by the manufacturer specifically for reduction in size of pavement material in place, and be capable of reducing the pavement material to the specified size. The cutting drums shall be enclosed and shall have a sprinkling system around the reduction chamber for pollution control. Both front and rear material control gates shall be hydraulically adjustable from the operator's platform in increments of 1/8 inch in order to control the amount of material being processed to insure proper sizing. The crushing equipment shall meet the approval of the Engineer.
3. Stabilizing Equipment - The stabilizing plant shall be a single-pass, multi-drum, self-propelled machine combining a cutter rotor, a blending rotor and two mixing rotors in the mixing chamber. The mixing chamber shall have a positive depth control to insure a uniform depth of stabilized material and must be capable of loosening the base materials to the depth called for without disturbing the sub base. The stabilizing plant shall add the asphalt in predetermined and accurately metered quantities, while maintaining a constant and fixed rate of forward motion, thoroughly blending the asphalt with the road materials, and spreading the mixture uniformly on the roadway. The spray bar shall have nozzles spaced at increments not to exceed six (6) inches and shall operate in such a manner that all asphalt will be uniformly applied throughout the mixing chamber at the time of injection. The asphalt additive system shall consist of a positive displacement pump and shall display the temperature, pressure, and flow rate to accurately check the rate of application of the asphalt at any time. Note: Full width processing is required to eliminate longitudinal joints in the stabilized material necessitating the use of two (2) or more stabilizing machines; depending on the width of road to be processed.

## MATERIAL DETERMINATION

Before construction is commenced, the depth and type of surface and aggregate base will be determined by the owner. If it is found that the combination of hard surface and aggregate base is less than eight (8) inches in depth, additional granular material may be placed by the Road Commission and graded to increase the depth of surface and aggregate base to a minimum of eight (8) inches. The granular material shall be rough graded to the established grade and cross-section within a tolerance of plus or minus 3/4 inch.

## CONSTRUCTION METHODS

### 1. Scarifying and Crushing:

The existing asphalt surface shall be crushed to a maximum size of two (2) inches, except that five (5) percent of the material may be oversized, provided that the oversized material is not so large as to adversely affect the stability and structural integrity of the mixture nor hamper the shaping operations. Rocks, of three (3) inch size or larger, have a devastating effect on the stabilization equipment. If rocks this size or larger are encountered below the surface and within the material to be stabilized, one of the following procedures will be instituted, either on an agreed unit price or force account basis, before construction commences.

- A. Removing the oversized rock and replacing with granular material.
- B. Placing enough additional granular material (at contractor expense) over the surface to ensure that the oversized rock is not encountered by the stabilization equipment.

The granular material shall be rough graded to the established grade and cross-section within a tolerance of plus or minus 3/4 inch.

Any monument boxes not removed and damaged during any of the construction operations will be replaced at the contractor's expense.

#### 2. Mixing with Bituminous Material:

The bituminous material shall be added only to that material which can be completely mixed and compacted in one day. The bituminous material shall be added through the mixer at the rate and within the temperature range directed by the Engineer. The temperature shall be kept below the flash point of the asphalt cement but shall not fall below 350° F.

#### 3. Shaping, Rolling and Compacting:

Shaping and compacting shall be done while the bituminous material is in a workable state. The mixed material shall be shaped so that when compacted it is in a reasonably close conformity with lines, grades, and cross-sections shown on the plans or as established by the Engineer. Stabilized material trimmed from the grade shall be used adjacent to the shoulder to complete the cross-section. Material in excess of the quantity required to complete the cross-section shall become the property of the Contractor.

#### 4. Curing:

Any areas which show evidence of cracking or instability will be investigated and corrected within 48 hours, before any work proceeds. All areas not caused by base problems will be remixed, re-graded and compacted at no additional cost.

### SUPPLEMENTAL SPECIFICATIONS

#### SUBCONTRACTING

The approval of the Clinton County Road Commission shall be obtained before naming a subcontractor for any substantial amount of work. The contractor shall assure himself that any subcontractor named has sufficient equipment, insurance and personnel to properly complete any item of work within the specified time.

#### INSURANCE REQUIREMENTS

Contractors working within the road right-of-way must have valid certificates of Workers' Compensation Disability Insurance and Liability Insurance naming the "Clinton County Road Commission, its Employees, and Commissioners" as 'additional insured' and shall be on file at the Road Commission office before work begins. Minimum requirements are:

Auto Liability	\$1,000,000 Bodily Injury/Property Damage Owned & Non-owned including statutory Michigan No-Fault and Uninsured Motorists
General Liability	\$1,000,000 Bodily Injury - each person \$1,000,000 Bodily Injury – each accident \$1,000,000 Property Damage – each accident \$1,000,000 Single Limit Policy
Workers' Compensation	Statutory coverage

MAINTAINING TRAFFIC

The Road Commission will provide install and maintain all signs required for the road closure and detour route.

The contractor will be required to provide all addition construction signs as outlined. The cost for contractor required traffic control will be included in the total bid per project.

Reasonable access for property owners along the streets under construction will be required. The contractor shall conduct his operations in such a manner that the property owner experiences a minimum amount of inconvenience.

The contractor shall conduct their daily operation so there is no uneven road surface at the end of the day. If the contractor has stoppage of work due to weather restrictions or equipment failure and an uneven road surface will result, the contractor shall place "Uneven Pavement" signs at no cost to the Road Commission.

Flag persons shall be required on all roads.

PRE-CONSTRUCTION MEETING

A pre-construction meeting, with a representative from each party, is required prior to the start of any construction.

MEASUREMENT AND PAYMENT

The completed work as measured will be paid for at the contract unit price for the following contract items (pay items):

<b>Contract Item (Pay Item)</b>	<b>Pay Unit</b>
Asphalt Crushing and Shaping (without base stabilization) -----	SQUARE YARD
Asphalt Full Depth Reclamation (crushing and shaping with base stabilization) -----	SQUARE YARD
Asphalt Cement -----	PER GALLON
Asphalt Emulsion -----	PER GALLON

Asphalt emulsion full depth reclamation work as described for this item will be measured by the square yard of the completed sections for the depth specified. It includes testing, traffic control as outlined in the **supplemental specifications maintaining traffic**, mobilization, crushing & shaping, reclaiming, including furnishing, preparing, hauling and placing any materials, such as water and aggregate; all freight involved; all adjustments, including grading and rolling; all labor, tools equipment and incidentals necessary to complete the work and quality control

A pay estimate will be prepared on the 1<sup>st</sup> and 3<sup>rd</sup> Monday of each month, after an itemized bill has been received from the bidder, covering the work completed on the project. Work on the project is considered complete upon final approval from the project engineer. Payments will be processed after approval of work completed on the 2<sup>nd</sup> and 4<sup>th</sup> Thursdays of each month or at regularly scheduled Clinton County Road Commission Board meetings.

The Board of Clinton County Road Commissioners reserves the right to accept or reject any part or this entire bid that is in their opinion in the best interest of the road commission.

Asphalt Base Crushing & Shaping (4" to 6" depth) PER SQUARE YARD Bid \$ \_\_\_\_\_

Asphalt Base Crushing & Shaping (1" additional depth) PER SQUARE YARD Bid \$ \_\_\_\_\_

Asphalt Full Depth Reclamation (4" to 6" depth) PER SQUARE YARD Bid \$ \_\_\_\_\_

Asphalt Full Depth Reclamation (1" additional depth) PER SQUARE YARD Bid \$ \_\_\_\_\_

Asphalt Cement (PG 52-28 or equivalent) PER GALLON Bid \$ \_\_\_\_\_

Asphalt Emulsion (Fortress or equivalent) PER GALLON Bid \$ \_\_\_\_\_

Remarks \_\_\_\_\_

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