State of Illinois

Department of Transportation

Bureau of Business Services

**Specifications and Questionnaire for Road Widening & Shouldering Machine**

October 2019

This specification and questionnaire covers a road widener machine attachment with shoulder spreading capabilities for spreading rock and/or asphalt shoulder materials by the Department of Transportation highway maintenance operations. The Department of Transportation is specifying acceptable units by Make, Model, and Required Accessories as outlined below.

Each bidder shall submit with their bid **two sets** of descriptive literature and specifications describing **all** the **equipment** and**options** proposed. This information shall be clearly marked to indicate the make, model, and accessories proposed to be furnished.

* The manufacturer of the equipment proposed has been actively involved in the manufacture of the equipment called for in the bid for a period of not less than 5 years.
* Parts and service for the equipment proposed are readily available within the State of Illinois.

It is the responsibility of each bidder to complete and return this questionnaire with the bid.

**Unless otherwise specified, the proposed equipment shall be complete in all parts and ready for immediate use upon delivery.**

**Bidders are advised to carefully read these specifications as changes have been made since the last solicitation issue.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Proposed with his bid:** | | | | | | | | |
| Make: | |  | | | | | | |
| Model: | | |  | | | | | |
| Manufactured By: | | | | | | |  | |
| Bidder: | | | |  | | | | |
|  | | | |  | | | | |
|  | | | |  | | | | |
| Telephone: | | | | |  | | |
| Contact Name: | | | | | |  | | |
| Email: |  | | | | | | |

The Illinois Department of Transportation reserves the right to waive minor informalities, deficiencies or technical variances which by their nature are restrictive to a given manufacturer, if in its’ judgement, it would be in the best interest of the State to do so and it would not prejudice the rights of other bidders.

Serviceability will be a factor in award. Successful bidder shall either be able to provide service after purchase or shall indicate other qualified service facilities able to service equipment, within a reasonable period of time at agency locations. Bidder shall provide documentation and enumerating service locations. A Review of the bidder's ability to provide prompt parts and service to the State of Illinois and in particular to the delivery location, will be considered in determining award.

Bids will only be accepted from established manufacturers or their authorized dealers. Any dealer submitting a bid hereby guarantees that it is an authorized dealer of the manufacturer and that the manufacturer has agreed to supply the dealer with all quantities of products required by the dealer in fulfillment of its obligations under any resultant contract with the State. Bidder must submit authorized dealer letter upon request.

**Warranty:**

Unless otherwise specified, Manufacturers’ standard warranty shall be provided. **Bidder shall attach copies of warranty with their bid****. Warranty shall commence at the Illinois Department of Transportation in-service date.** If any equipment fails to conform to the warranties during the applicable warranty period, the Vendor or Manufacturer will adjust, repair or replace the equipment at no charge to the Department as soon as possible upon notice from the Department. Equipment shall be repaired on-site and will be performed at no additional cost to the Department.

The Vendor may provide or perform warranty service at a dealer location within the Districts geographic region if on-site repair is not possible. Vendor shall facilitate pickup and delivery of equipment at Vendor's cost if warranty repair(s) are made off-site during the warranty period. The contract Vendor is responsible for any failure of their allied or sub-contractors’ fulfillment of said warranties. Failure to provide this service shall result in a “Complaint to Vendor” that could affect future bid awards.

**Delivery:**

It will be the responsibility of the successful vendor to guarantee delivery within the quoted time and to require allied manufacturers or suppliers to complete the installation of auxiliary equipment in accordance with the quoted delivery time.

Failure to comply with the quoted delivery time because of delays resulting from the inability of suppliers of allied equipment such as bodies, snowplows, spreaders, etc., may be reason to refuse to consider similar items from those suppliers on future bids.

All equipment provided by the Vendor and the sub-contractor(s) shall be fully operational when delivery is made. Any noted defects at the time of delivery shall be addressed by Vendor in the first 30 days of in-service.

Bidder/Vendor acknowledges the requirements above. Yes  No

|  |  |  |  |
| --- | --- | --- | --- |
| Bidder/Vendor Initials: |  | Date: |  |

**Note: If the equipment proposed exceeds the minimums called for in the specification please do not mark NO. Mark Yes and explain with a short comment on how it exceeds.**

The following model(s) are for reference and descriptive purposes only. These machines have been used in Department of Transportation Operations in the recent past. Other manufacturers of similar equipment meeting the requirements and performance standards within will be considered as equal and evaluated for award.

Road Widener and Shouldering machine:

Midland Model SA – Left or Right Configuration Discharge Model or equivalent.

**The unit shall include the following standard or optional accessories and equipment:**

The machine shall consist of a hopper with a reversible conveyor belt at the bottom and hydraulically extendable side shoe used to place material dumped into the hopper by dump trucks. The widener functions shall be powered by a self-contained diesel engine and hydraulic system. The prime-mover shall attach with coupler system.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Describe: |  | |
|  | |  |

**Mounting Pad:**

The widener shall include a coupler type hitch pad that will be functional with specified wheel loader.

John Deere 524K-II with Z-bar coupler

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Describe: |  | |
|  | |  |

**Hopper:**

The hopper shall be designed to accept material dumped from 8 and 12 cubic yard standard dump bodies or combination tractor/trailers. Replaceable rubber upper hopper extension to prevent material spillage shall be included. Inner and outer edge plates shall be included for curb or median type work.

Complies: Yes  No

At the bottom of the dumping hopper shall be a bi-directional conveyor belt to direct the flow of material. The conveyor shall be approximately 18” wide.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Conveyor length: |  | Inches |
| Conveyor width: |  | Inches |

The direction of the conveyor shall be controlled by using hand controls located at the operator platform.

Complies: Yes  No

The widener shall have dual, operator controlled, hydraulically extendable push rollers to contact the rear wheels of the truck/trailer. The rollers and the construction of the hopper shall be robust to allow the pushing of a fully loaded single or tandem axle truck on an up-hill grade. If required, the hopper shall include roller extensions for use with combination tractor trailer units.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Hydraulic Extension Range: |  | Inches |

The widener shall have an overall transport width (shoe/sideplate retracted) of approximately 138”, an overall height of approximately 49”, an overall length of approximately 90”.

Complies: Yes  No

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Overall width: |  | | | Inches |
| Overall height: | |  | | Inches |
| Overall length: | |  | | Inches |
| Height to clear rollers | | |  | Inches |

The hopper shall be supported on the bottom by four (4) caster frames with two (2) caster wheels per frame for smooth support of the widener. They shall have steel hubs with hard poly covers at a diameter furnished by the manufacturer. Note: Pneumatic tires are not acceptable.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Caster diameter: |  | Inches |

**Conveyor:**

The conveyor belt shall be approximately 18” wide with a belt on chain design and capable of discharge from the right or left as configured.

Complies: Yes  No

The length of the conveyor shall be approximately ±96”.

|  |  |  |
| --- | --- | --- |
| Length of conveyor: |  | Inches |

The belt shall withstand heat of approximately 350° F rated for aggregate or hot asphalt use and be fully adjustable.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Belt temperature rating: |  | Degrees |

**Power Unit:**

Type – Current production, Diesel engine with a minimum of 20HP including the following:

* Electric start
* Low oil shutdown
* Hour meter
* Maintenance free battery
* Charging system
* Filtration/water separator
* Throttle

Complies: Yes  No

**Fuel Tank:**

Clearly marked “Diesel Fuel” with approximate capacity of 15 gallons.

|  |  |  |
| --- | --- | --- |
| Capacity: |  | gallons |

Complies: Yes  No

**Hydraulics:**

A domestic manufactured hydraulic pump shall provide power to the conveyor and strike-off blade. Hydraulic cylinders shall be double acting. Hydraulic reservoir tank shall have both suction and return filtration with replaceable spin-on filters.

Complies: Yes  No

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hydraulic reservoir capacity: | |  | gallons | |
| Pump Type: |  | | |

**Drive system:**

The conveyor shall be operated by a reversible hydraulic motor. The hydraulic motor shall drive a sprocket and chain type belt conveyor with idler shafts.

Complies: Yes  No

All drive or idler shafts with non-sealed bearings shall be drilled and tapped with grease zerks for ease of maintenance in the field.

Complies: Yes  No

The drive system shall allow for adjustment of conveyor chain in the field and shall not require disassembly to perform adjustments.

Complies: Yes  No

The drive system shall include all fittings and hoses needed to operate the conveyor when installed.

Complies: Yes  No

The hydraulic operation of the conveyor and shoes shall be standard hydraulic requirements

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Hydraulic requirements: |  | GPM |

**Strike-off Blade:**

The widener shall include a hydraulically operated strike-off blade that can be configured on the right or left side of the machine depending on jobsite. It shall be capable of being fully closed or hydraulically extendable to from 1’ to 6’ and provide a positive lock and hold to any dimension in between. Hydraulic slope adjustment shall allow for 12” above or 12” below level grade.

Complies: Yes  No

|  |  |  |
| --- | --- | --- |
| Shoe extension dimensions: | to | Feet |
| Slope adjustment: | above       below | Inches |

The side plate or shoe shall be sized to prevent material from going over the top.

Complies: Yes  No

Strike-off blade shall include quick attach adjustable push bar with mounting for wheel loader chassis.

Complies: Yes  No

**Operator Platform:**

An elevated operator’s platform shall be provided to mount behind the strike-off blade allowing the operator full view of the conveyor, supply truck rear view mirror and strike-off plate. It shall be moveable from left to right as needed depending on job.

Complies: Yes  No

**Operator Controls:**

A single control panel shall be located next to the operator platform and include the following:

* Strike-off blade, grade, slope and extension.
* Conveyor, on/off and speed
* Throttle
* Emergency Shut down

Complies: Yes  No

**Paint/Finish:**

All exterior surfaces normally painted shall be cleaned, prepped, painted or powder coated manufacturer’s standard color.

Complies: Yes  No

**General:**

Three copies of all operator's manuals, parts lists, and warranty information shall be provided at time of delivery to each location.

Complies: Yes  No

***Note:*** The manuals, parts lists, and service or shop manuals listed above may be furnished on CD/DVD or flash drive in lieu of paper.

Instruction and training by qualified factory and dealer personnel covering operation and maintenance of the machine shall be provided at time of delivery.

Complies: Yes  No

**Requirements Covering Items Detailed Above:**

All equipment cataloged as standard shall be furnished and in place and shall be included in the purchase price of the unit. Any parts, tools, and/or accessories not specifically called for but required for proper operation shall be provided.

Complies: Yes  No

The component parts of the unit shall be of proper size and design to safely withstand maximum stresses imposed by a capacity load, and the manufacturer's rated loads for all component parts shall**not** be exceeded when the unit is so loaded.

Complies: Yes  No

Full coverage warranty for a minimum 12 months shall be provided. The bidder shall attach a copy of warranty with the bid. Since the continuous operation of this equipment is of the utmost importance and sometimes of an emergency nature, it is necessary that the successful bidder render prompt parts and service.

|  |  |
| --- | --- |
| Describe warranty: |  |
|  |  |

The vendor or manufacturer of the unit which is seriously considered for award shall, at the request of the State of Illinois, demonstrate this equipment at a location chosen by the state and in the presence of authorized state personnel to prove out any features in question.

Complies: Yes  No

**Delivery:**

This machine is to be delivered in first-class operating condition with acceptance subject to Department of Transportation approval.

Complies: Yes  No

**Bid Package:**

If not quoting in BidBuy, bidders will need to send two copies of each of the following with their bid response.

a) Specification Questionnaire

b) Descriptive Literature