**Stepp SMMT Trailer Mounted Asphalt Recycler**

**Bidding Specifications**

**1.0 INTENT**

It is the intent of this specification to provide for the purchase of one (1) new and unused STEPP SMMT Asphalt Recycler to be used for the purpose of recycling asphalt materials for pothole patching.

The following specification is based upon a STEPP SMMT Asphalt Recycler. The Public Works Department has evaluated different styles of recycling equipment and has determined that this product is best suited for the DPW needs in terms of quality and features. This specification shall not be interpreted as restrictive, but rather as a measure of quality and performance against which all other distributors will be compared.

In comparing proposals, comparisons will not be confined to price only. The successful bidder will be the one whose product is judged as best serving the interests of the DPW when price, product, quality, and delivery are considered. The DPW also reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities. A contract will be awarded to the bidder submitting the lowest responsible bid meeting the requirements.

**2.0 EQUIVALENT PRODUCT**

Bids will be accepted for consideration on any make or model that is equal or superior to the recycler specified herein. Decisions of equivalency will be at the sole interpretation of the DPW. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. An original manufacturer’s brochure of the proposed product is to be submitted with the proposal.

**3.0 INTERPRETATIONS**

In order to be fair to all bidders, no oral interpretations will be given to any bidder, as to the meaning of the specification documents or any part thereof. Every request for such a consideration shall be made in writing. Based on such inquiry, the DPW may choose to issue an addendum in accordance with local state laws.

**4.0 GENERAL**

The specification herein states the minimum requirements of the DPW. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. The DPW will consider as irregular or non-responsive, any and all bids that are not prepared and submitted in accordance with the bid document and specification, or any bid lacking sufficient technical literature to enable the DPW to make a reasonable determination of compliance to the specification. It shall be the bidder’s responsibility to carefully examine each item of the specification. Failure to offer a completed bid or failure to respond to each section of the technical specification (COMPLY: YES NO) will cause the proposal to be rejected without review as non responsive. All variances, exceptions, and/or deviations shall be fully described in the appropriate section. Deceit in responding to the specification will be cause for rejection.

**5.0 SPECIFICATIONS COMPLY**

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| **GENERAL CONSTRUCTION:**  The unit shall be all welded construction for maximum strength. Components that may need to be removed for service or replacement shall be installed with rust resistant plated hardware. All permanent electrical connections are to be soldered and then protected with heat-shrink tubing to provide trouble-free service. The asphalt Recycler shall be able to completely recycle asphalt millings and chuck asphalt as well as heat new bag style virgin materials and also reheat cold patch materials. It will be able to accomplish this without the need of any other required equipment to load the unit. | **YES** | **NO** |
| **Hopper:**  The hopper for the SMMT asphalt recycler is a pugmil mixer design with indirect heat. |  |  |
| The unit is a batch style recycler and is capable of recycling old asphalt millings and chucks as well as heating new bag style materials, warming cold mix asphalt, or making custom mixes. |  |  |
| The unit is capable of recycling a batch (approx. 500 lbs.) of asphalt in 8-15 minutes to a temperature of 350°F. |  |  |
| The unit will recycle asphalt millings into new 350°F hot mix at a rate of up to 1 ton per hour. This rate can be achieved even at an outside temperature of 20°F, giving you usable production rates year round. |  |  |
| The unit shall be able to recycle on the road way without the need of any other equipment other than a dump truck with a grain door in the tailgate. |  |  |
| The hopper shall have a capacity of five (5) cubic feet. This will yield approximately 500 pound batch. |  |  |
| Mixing chamber liner shall be replaceable and constructed of Endura wear resistant material. |  |  |
| The pugmil mixes the material against the heated Endura liner to get things hot. It does this by a direct hydraulic drive. The pugmil also has opposing, angled paddles to act like an auger when the pugmil is put into reverse. It also has a variable speed hydraulic control to set your discharge to the speed that you need. |  |  |
| The hydraulic drive motor on the pugmil mixer is a 24 cubic inch and is direct coupled to the pugmil. |  |  |
| Shall have dimensions of 166”L x 78”W x 85”H and weigh no more than 3650# empty. |  |  |
| The hopper shall have 2” ceramic insulation and a 16 gauge steel insulation jacket. |  |  |
| Preheat Bin:  The preheat bin shall be located on the top of the mixing hopper. It shall house a full batch while mixing one in the hopper. The preheat hopper shall have the burner exhaust channeled through the preheat hopper wall. |  |  |
| The preheat hopper shall have an opening of 22”x20” and will have a butterfly style trap door. The trap door shall have an external handle that will utilize a gas assist shock to hold the door closed and will have a positive latch. |  |  |
| Exhaust heat shall allow preheating of RAP, reducing fuel consumption. |  |  |
| **CONVEYOR:**  The unit will include a self-loading conveyor. The material will be dispensed into a receiving hopper that will have a 12” rubber belting around the top to offer a flexible funnel for the conveyor. |  |  |
| The conveyor will have a chevron style belt to eliminate materials from spilling. |  |  |
| The conveyor will be hydraulically controlled and have a variable speed hydraulic valve located on the curb side of the unit. The hydraulic valve will have forward, neutral and reverse capabilities. |  |  |
| The conveyor shall also be convertible to a horizontal loading conveyor for loading bag style materials into the unit. |  |  |
| **TRAILER:**  The frame shall be constructed with a minimum 2"×4"X 3/16” rectangular tubing Open channel shall not be used. Stress and bend points to be double reinforced |  |  |
| The trailer shall be equipped with1-6000# leaf spring single  axle, unit shall have ST225/75R15 load range “D” radial tires, heavy  duty replaceable 12 gauge steel fenders, pintle hitch, adjustable from 15” to 27” and adjustable screw jack. |  |  |
| Safety chains shall be included. A minimum 5000 lb. capacity tongue  jack with swing away feature for road clearance shall be installed. |  |  |
| **LIGHTS:**  Combination stop, turn, and clearance lights with license plate bracket wired in protective loom with 7 pin RV connector. Shall be a 2 light LED system. |  |  |
| **SHOVEL PLATFORM:**  The material shall be dispensed onto an attached shoveling platform. The platform will fold up to allow product to dispense directly to the road surface if desired. |  |  |
| **HEATING SYSTEM:**  Shall be diesel fired with a fire box constructed of 3/16” steel. |  |  |
| Shall be designed so as no flame will come in contact with any material. |  |  |
| Diesel burner to be Beckett forced air diesel fuel burner with an operating output of up to 275,000 BTU. The burner shall be completely self-contained with automatic ignition and safety shut off circuitry to stop the fuel flow if the flame goes out. The burner shall be designed to operate on 12 volt DC power without the need for additional adaptors or apparatus. The heating system shall operate on either #1 or #2 diesel fuel. Fuel is supplied from a 30 gallon fuel tank. |  |  |
| Hydraulic drive mixer shall be driven from a hydraulic motor that shall be powered by engine’s hydraulic system. The mixer shall have a hydraulic flow control valve to operate the mixer in the mix and discharge mode (forward/reverse). |  |  |
| Burner timer shall aid in the production of recycled materials. The timer shall be resettable and adjustable in seconds and minutes. The burner will shut off once the timer has reached the set time, preventing over-heating of material. |  |  |
| Shall be insulated with 1 ½” of refractory type insulation. |  |  |
| **HONDA GASOLINE ENGINE:**  Shall be model GX390, air cooled, 4-stroke OHV petrol engine, 25”  inclined cylinder, with horizontal shaft. Shall be 13HP with the transistorized igniter system and recoil, and electric start system. Shall have an 18AMP charging circuit. |  |  |
| **PAINT:**  Surfaces of the unit will be properly prepared and primed per standard industry practices. It will be phosphate washed (etched) and shall have a two (2) part polyurethane paint. |  |  |
| **WARRANTY:**  Shall be one year on parts, materials, and workmanship. Product pumps and hoses that handle heated materials shall have a 12 month pro-rated warranty. Component parts such as engines, hydraulic components, tires, etc., shall be covered by the component manufacturer’s warranty. |  |  |
| **OPTIONAL FEATURES** |  |  |
| **SHOVEL CLEANING COMPARTMENT:**  Shall be constructed of 12 gauge material with splash guard compartments, drain plug, and rain tight cover. Shall hold (4) four shovels. |  |  |
| **STROBE LIGHT Beacon:**  12 volt powered amber LED. Shall be controlled from operators control panel. Strobe shall be mounted on the top cover on the rear of unit. |  |  |
| **STROBE LIGHT LED Flush Mount:**  12 volt powered amber LED. Shall be controlled from operators control panel. Strobe shall be mounted on the top cover on the rear of unit. |  |  |
| **ARROW BOARD:**  12 volt powered directional arrow board. Controlled from operators control box. Mounted on rear of machine. |  |  |
| FIRE EXTINGUISHER:  10# ABC type mounted on the platform of the unit. |  |  |
| **COMPACTOR PLATE CARRIER:**  To have electric raise and lower for operator convenience. Shall have a spring lock and fold up out of the way when not in use. |  |  |
| **SPARE TIRE:**  Spare tire with holder mounted onto frame of unit. |  |  |
| **WASHDOWN SYSTEM:**  Consists of a 12 volt pump with hand spray wand and 15’ hose to wash tools and interior of hopper. |  |  |
| **TOOL BOX:**  Shall be constructed of 12 gauge steel with cover and locking hasp 10”x 10”x 24”. |  |  |
| **STAINLESS STEEL TOOL HOLDERS:**  Spring loaded clamps for holding rakes, lutes, brooms, and shovels. Mounted onto fender. Can add up 4 tool holders per machine. |  |  |
| **DIESEL ENGINE W/ HYDRAULIC SYSTEM:**  Kubota water cooled diesel engine in lieu of Honda gasoline engine. |  |  |
| The engine shall be a 16HP, 2 cylinder, liquid cooled Kubota diesel engine with electric start. |  |  |
| **HAND TORCH:**  Hand held LP torch with 15’ hose and 20# LP bottle with rack. For heating hand tools and drying potholes. |  |  |
| **HOSE REEL:**  Hose reels for wash-down hose, and hand torch hose. |  |  |
| **MATERIAL ADDITIVE BIN:**  A steel box located under the conveyor to conveniently store your asphalt additive pucks. |  |  |
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**Exceptions & Deviations**

Bidder shall fully describe every variance, exception, and/or deviation. List the item number here and fully explain any items in non-compliance with specification. Additional sheets may be used if required.

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