

SPECIFICATIONS
ONE (1) SINGLE AXLE PATROL TRUCK – CHASSIS ONLY

This entire Bid document must be returned, with all of the appropriate lines and spaces filled-in with the required information. To comply with the advertisement for Bid, the following general specifications are to be adhered to: The equipment must be **NEW**, the latest type and model manufactured, and must equal or exceed the following specification requirements. Bidder should order truck from factory with placement of chassis equipment items; where possible; of exhaust system, fuel tank, battery box, air tanks, air drier, emission equipment, etc. to accommodate the installation of an aftermarket hydraulic, 11' dump body, front plow, tailgate sander, right front wing. Any additional alterations required on the truck chassis to mount and /or relocate any of chassis equipment items will be at **Chassis Vendor's expense**. Clearance specifications for these items are listed in this Bid form. If there are any questions concerning these clearances or the placement to best accommodate installation, contact, Norm Fischer, Street Superintendent, at 715-443-2221. Delivery is to be made to Marathon City's Village Garage.

1. **PATROL TRUCK.** 46,000 GVWR Minimum. Cab to axel length to be determined at time of order. One line-set ticket will be supplied at time of delivery.
2. **Engine.** Diesel engine, liquid cooled, 330 HP, with 1000 foot pounds of torque. Thermostatically controlled air operated engine cooling fan clutch. Spin on oil, coolant, and fuel/water separator filters with thermostatic fuel temperature controlled electric heater. Fuel priming pump. Dual element air cleaner with snow shutter with option to draw air from under hood, operable from operator's station. Automatic engine shut down with manual override. Heavy duty radiator with coolant reservoir. Coolant will be Shell Rotella Ultra antifreeze or completely compatible with Shell Rotella Ultra, and set to -40F. Clearance under radiator to accept drive shaft from engine crankshaft to hydraulic pump, with the crankshaft adapter to be supplied by engine manufacturer. Hole in radiator for pump shaft to pass through will only be accepted if engine cooling is not compromised and prior option under the radiator is not available.
3. **Engine Emission System.** Truck will include a SCR engine emission system. Emission components diesel particulate filter (DPF), selective catalytic reduction (SCE) catalyst, recirculation (EGR), catalytic convertor, etc.; must meet all clearance issues stated in this bid specification. DEF fluid tank mounted under driver's side cab right behind front wheel. Variations must be noted. Also factory literature including pictures and scaled drawings depicting location, size and clearance measurements of items listed above shall be provided with chassis bid.
4. **Exhaust System.** Muffler/DPF will be located under passenger side cab with a minimum 20 inches of ground clearance with vertical pipe, turn our stack tip and safety guard and grab handle. Stack or muffler will not extend behind rear of cab. Exhaust will not cause any mirror, dump body, or wing obstruction. Exhaust stack tip will be low enough as to not obstruct the strobe light bar.
5. **Transmission.** Automatic transmission: Allison 3000RDS or equal and include a transmission cooler. Vehicle must have a speed signal (VSS) wire connection in cab for spreader control. Transmission control module mounted in cab.

- 6 **Axle.** 20,000 lb. front axle, with oil seals and see through oil hub caps. 26,000 lb. minimum rear axle. Read axels to be geared as to have maximum power for plowing at speeds of 25-35 MPH in one gear at a maximum torque, with a maximum high gear road speed of 65 MPH. Maximum high gear road speed will be determined by engine governed RPM, transmission and differential gear ratios; not by any electronic means. Rear axle will have operator controlled inter-wheel lock.
- 7 **Suspension.** Front 20,000 lb. minimum capacity hub / ground rated. Front suspension will be multistage tapered leaf design with shock absorbers. Rear suspension to be 26,000 lb. minimum capacity hub / ground rated (including axle, brakes, wheels and tires, etc.). Hendrickson Primaax EX, or equal air ride suspension with shocks, to provide a minimum 24 inches of ground clearance when loaded.
- 8 **Frame.** A minimum 7/16" thick single frame with a 20.25 section modulus and 2,430,000 RBMs minimum of 14" ahead of radiator grille, no bolt on or weld on frame extension will be accepted. Steel front bumper needed.
- 9 **Wheels & Tires.** Hub piloted Unimount steel front wheels with steel hubs and **heavy duty** hub piloted steel rear wheels. Rear Unimount wheels will have a minimum rating of 8,000 pounds and 120 PSI each. 425/65R22.5 Michelin XZY3 Wide Base load range "L" front tires or equal; 12R22.5 Michelin XDE M/S 16 Ply read tires or equal.
- 10 **Brakes.** Full air with S Cam type actuators, 16.5" x 6" Q+ front, 16.5" x 7" Q+ rear minimum with rearward mounted brake chambers to be mounted so as not to extend beyond rear tires. Parking brake spring applied to hold a fully loaded truck on incline. Air compressor to be 12 C.F.M., with 24000 cu. In. reservoir. Air tanks mounted in-board of frame rails, so as not to interfere with the dump body, and wing harness. Low pressure buzzer and air pressure gauge. Air dryer required will be Bendix AD-IP. All wheels will include brakes dust shields.
- 11 **Power Steering.** Hydraulic power steering with Sheppard brand dual steering gears, must be capable of turning, when truck is loaded at idle, not in motion with plow raised.
- 12 **Fuel System.** Standard 50-60 Gallon tank mounted under cab. Spin-on fuel filter and water separator, filters must be mounted as such to be accessible.
- 13 **CAB.** Conventional air ride cab with front fender extensions and tilt hood, no butterfly hood openings, tilt hood shall include tilt assist if available. Minimum 8" deep driver side steps with adequate traction. Reinforced cab roof. Inner front fender skirt to protect engine area from road moisture and dirt thrown by front tire. Stationary grille with rock guard, air conditioning, power windows, AM/FM radio, roof mounted dual air horns with covers, padded sun visor, arm rest. Suspended type brake and accelerator foot pedals. Heavy duty rubber floor mats, exterior grab handles on both sides, momentary style regeneration inhibit switch, tinted glass, tilt steering wheel, National 2000 high back air suspension cloth covered driver's seat. Driver's seat will include; triple chamber air lumbar controlled with three switches, cushion length adjustment, back recline, fold down arm rest, fore/aft isolator, seat & back cushion air operated bolsters. Standard passenger seat. Both seats must have seat belts with shoulder harness. Panel instruments to include speedometer, tachometer, ammeter or voltmeter, engine oil pressure, engine coolant temperature, air pressure, fuel meter, air filter restriction gauge, transmissions temperature gauge, accessory power plug, heavy duty fresh air heater with dual defrosters to cover entire windshield, electric operated intermittent windshield wipers with washer. Cowl tray cover to reduce snow accumulation below windshield and help prevent snow

entry into the heating system. Cab filter for heater air intake. Driver controlled power adjustable heated mirror assembly system; dual west coast top, approximately 7"x16", retractable type, and separate 8" rectangle convex mirror mounted below, all on a retractable arm assembly. Front fender mounted 7" rectangular hearted spot mirrors on both sides with brackets strong enough to support Village mounted plow lights, brackets must be mounted on most forward front edge of fender. Vehicle must be compatible with 2 way digital radio. Interior cab noise level in full operation not to exceed 80 DBA. Cab interior must be fully insulated. Rustproofing with aftermarket Zeibart rust proofing or approved equal. Passenger door factory installed wing view window.

- 14 Electrical System.** Heavy duty starter, Delco Remy model number MT39, MT41, or MT42. Alternator will be a Delco Remy 12 volt, 160 AMP, 24 SI, Part #8600310 J-Mount or 8600143 Quad-Mount; 45 AMP at curb idle minimum. Two heavy duty 12 volt, 31 series stud terminal commercial batteries, battery box size will be no larger than needed for batteries. Battery box location will be on the driver side outside frame rail below cab and will not extend back of cab. Master disconnect switch for all battery connections, this switch will be mounted in battery box and control disconnect of negative cable circuit. **Option** – batteries in cab under passenger seat, (see option line on bid page). Circuit breakers instead of fuses. Halogen headlights. Factory installed toggle switch and wiring harness to control either upper plow headlights or lower truck headlights for Village's fender mounted plow lights, harness will be long enough to reach fender lights.
- 15 Paint.** Truck Cab to be painted "**Omaha Orange**". Top of hood shall be flat black to reduce glare.
- 16 Standard Equipment.** All usual standard equipment to be included.
- 17 Service Manual & Parts Books.** Unit must include manuals for operator, parts and complete shop service including schematics for: engine, drive train, chassis, and electrical. Manuals can be on computer disc as option. A separate list of part numbers for consumables for complete unit must be furnished for cross over vendors. Parts include all filters, belts, fluids and all lubricants required. **All manuals and consumables lists will be supplied at time of delivery before final payment is made. No exceptions.**
- 18 Warranty.** Must be furnished in writing for complete truck and all mounted accessories. All warranty work shall be done by selling dealer. All warranty work will be picked up at and returned to **Marathon City** by the selling dealer with all warranty work completed within one week of notification of needed work, unless dealer can show justification for extension; mutually agreed upon by the Village. Failure to comply with warranty specification will be ground for disqualification for future bids. **Warranty for unit shall start the day the unit is placed in service.** List extended warranty for engine and/or drive train. See line on bid page. Include printed literature explaining coverage and exclusions.
- 19 Bid Form.** Bid must be on form issued by this office. Incomplete bid form can result in loss of bid.
- 20 Taxes & License.** No Federal or State taxes are to be included in bid. **Bid price included License and Registration fees.**
- 21 Bid** must be submitted on or before time and date as published. Mark "**Single-Axle Patrol Truck Chassis Bid**" on outside of envelope. Bids will be considered good for 30 days unless otherwise indicated. Include all factory literature and specification sheets of complete unit with bid.

22 DELIVERY. Complete delivery of the above unit is accordance with specifications to be made not later than January 31, 2015 to Village of Marathon City Streets Department, Marathon City, Wisconsin. Starting February 1, 2015 if delivery has not been made, Marathon City will begin imposing a \$50 per calendar day penalty for every day past due delivery date for the first 30 days; increasing \$100 per calendar day thereafter. Any penalty amount will be subtracted from the final payment price upon complete delivery. Price, delivery day, chassis weight, clearances, etc. will be considered factors in the award.

The Village of Marathon City Streets Committee or/Village Board reserves the right to reject any or all bids or parts thereof, to waive any minor informalities in any bid submitted, and to make such award as deemed most advantageous to the Village of Marathon City.

Answers to questions regarding the above should be directed to Streets Superintendent at 715-443-2222 or Village Administrator at 715-443-2221.

EQUIPMENT SPECIFICATIONS
ONE (1) SINGLE AXEL PATROL TRUCK

1. 11 Foot Stainless Steel Dump Body:

- 11 ft. body length (Stainless Steel)
- Body manufacture from sent (7) gauge 201 Stainless Steel 110, PSI tensile strength / 55,000 psi yield strength
- ¼" floor AR 400 material
- 30" side height with board pockets
- 22" cab shield (Stainless Steel)
- Double action seven (7) gauge 201 stainless steel tailgate, with chains
- Ladder passenger rear side of body
- Grip Strut walk rail on both body sides (Stainless Steel)
- 3 light holes, factory installed rear body posts (outside)
- Greasable hinge and tailgate linkage
- 10" tall 409 Stainless Steel formed long sills **(No sub-frame)** keep body low
- *****No Sub-frame*****
- Maihot (CS100-4.5-3DA) series double action hoist with internal dog house

2 9" Tailgate Sander 201 Stainless Steel

- Option a 201 Stainless Steel Berm chute

3 Reversing Snow Plow-12-42-FT-ST

- (Twin) 3"x10" nitride hydraulic turn cylinders, mounted above push frame
- Adjustable 5 position trip compression springs
- All lift and trun cylinders to have nitrate finish
- Integral Shield / Rubber Deflector
- Side Markers
- Pin & loop hitch

Option: 201 Stainless Steel Mold Board

4 Front Mount Wing (postless style design)

- 10 ft. front mount wing
- Nitrided Cylinders
- Hydraulic wing lock on toe and heel
- Trip mold board / rotational tip

Option: 201 Stainless Steel Moldboard

- 5 Hydraulics**
- Stainless steel valve enclosure and oil reservoir combination
 - Morse cable controls
- Valving to control equipment listed below**
- Dump body: Raise and lower, double actin telescopic cylinder
 - Plow: raise and lower, no float
 - Plow: angling, right and left angle
 - Wing: toe, raise and lower, double acting
 - Wing: heel, raise and lower, double acting
 - Valving for tailgate sander operation
- 6 Spreader Control**
- Dual flow control
- Option:** Open Loop electric spreader control
- 7 Lighting**
- Aluminum light bar to fit chassis
 - Whelen L21 LAP LED Strobe lights one at each end of light bar (2) total
 - Whelen 5GA00FAR lights mounted in SS light boxes on rear corner posts
 - LED back up light in rear corner posts
 - LED SST light in rear corner posts
 - LED underbody scraper light
 - LED Amber sand light if available otherwise incandescent
 - LED Wing light
 - Nordic plow lights with stainless steel mounting brackets on hood
- 8 Miscellaneous equipment**
- Air bag mounted to front right spring for wing support, control mounted in cab
 - Stainless steel shovel holder
 - Part and Operator manuals supplied with truck
 - Back up alarm
- 9 DELIVERY. Complete delivery of the above equipment installed completed and is accordance with specifications to be made not later than January 31, 2015 to Village of Marathon City Streets Department, Marathon City, Wisconsin. Starting February 1, 2015 if delivery has not been made, Marathon City will begin imposing a \$50 per calendar day penalty for every day past due delivery date for the first 30 days; increasing \$100 per calendar day thereafter. Any penalty amount will be subtracted from the final payment price upon complete delivery. Price, delivery day, chassis weight, clearances, equipment, etc. will be considered factors in the award.**

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