

**CITY OF KENOSHA  
PUBLIC WORKS DEPARTMENT - STREET DIVISION**

**SIX (6) - TANDEM-AXLE  
AND SEVEN (7) - SINGLE-AXLE DUMP TRUCKS**

**PROPOSAL NOTICE #12-19**

**NOTICE TO RESPONDENTS**

**Issued: December 23, 2019**

1.0 Sealed proposals will be accepted by the City of Kenosha, in the Department of Finance, Municipal Office Building, 625 52nd Street, Room 208, Kenosha, WI. 53140 until Thursday January 30, 2020 at 2:30 P.M. for the provision and delivery of the following in accordance with City of Kenosha standard terms and conditions, and the specifications contained herein.

2.0 Proposals must be sealed and submitted on the attached proposal form and returned clearly marked with the scheduled date and time of opening. Proposals received after the date and time of opening will not be considered. All proposals shall be submitted in a sealed envelope carrying the following information: proposing firm's name, firm address, proposal description, proposal notice number and date and time of proposal opening. Proposals submitted via facsimile or through other electronic means will not be accepted.

3.0 Vendors shall furnish complete manufacturer specifications and manufacturers descriptive literature describing in detail the equipment that is proposed. Vendors shall answer all questions on the enclosed proposers specifications. All blank spaces should be completely filled in. Any questions regarding these specifications should be directed to Mr. Jay Getka, Fleet Maintenance Superintendent at 262-653-4079.

4.0 The City of Kenosha reserves the right to award contract to the most qualified and responsive proposer. The City reserves the right to accept or reject any or all proposals or to accept any proposal that is considered the most advantageous to the City of Kenosha.

5.0 The City of Kenosha is exempt from from Federal Excise Tax and State Sales Tax, therefore, proposals should be made exclusive of these taxes. A Tax Exemption Certificate will be furnished to the successful vendor.

6.0 State delivery date on the proposal form or the number of days from receipt of purchase order.

7.0 Delivery is F.O.B. Destination to the City of Kenosha, at the following address:

Public Works Department - Fleet Maintenance Division  
3725 65th Street  
Kenosha, WI. 53142

8.0 Please take into consideration that the City may have vehicles available for trade-in. The City reserves the right to accept or reject any trade offered as part of this solicitation.

9.0 Award will be made within thirty (30) days of scheduled opening to the lowest responsive responsible vendor meeting or exceeding City of Kenosha specifications, providing proposals are received within budgetary amounts.

**CITY OF KENOSHA  
PUBLIC WORKS DEPARTMENT – STREET DIVISION  
MINIMUM SPECIFICATIONS  
SIX (6) – TANDEM AXLE DUMP TRUCK**

<b>Minimum Specifications</b>	<b>Proposers Specifications</b>
<p>1. <b>GENERAL:</b> It is the intent of this specification to describe the minimum requirements for six, (6), tandem axle, dump truck to be purchased by the City of Kenosha, for use in the Department of Public Works – Street Division. All parts, items, or features not specially mentioned, which are necessary or which are regularly furnished in order to provide a complete unit, shall be furnished and delivered by the successful Vendor at the proposed price and shall conform in strength, quality of material and workmanship to that usually provided by standard engineering practice.</p>	
<p>2. <b>MANUFACTURER'S WARRANTY:</b> The City of Kenosha is obligated to purchase equipment which will give service over a long life. During the warranty period, the Vendor shall replace and install, without charge, any defective parts or any parts not suitable for the service intended. All warranty work shall be picked up by the Vendor within seventy-two, (72), hours of notification by the City, and delivered within seventy-two, (72), hours after completion of repairs. The warranty period shall begin when the vehicle is placed into service by the City.</p>	
<p>2.1 The Vendor shall be responsible for all “transportation” charges during the full warranty period for any equipment that requires warranty repair and/or replacement. The term “transportation” shall mean the physical driving of the unit by the Vendor but not to include towing or “trailer” of the unit. This includes picking up the unit from a designated City facility; delivery to an authorized repair facility; and return of the unit to a designated City facility.</p>	
<p>2.2 The Vendor shall supply the City with written authorization for any warranty work, performed by City personnel, which has been verbally agreed upon. The written authorization shall include both the labor and parts reimbursement agreement which shall either be faxed, electronically mailed or sent by First Class US Mail. The City will invoice the Vendor for all warranty work performed by City</p>	

personnel.	
2.3 The Vendor shall warrant the complete unit, excluding attachments but including the chassis, body, electrical and electronic components, hoist, hydraulic system, front plow, wing plow, salter system, dealer installed accessories and related components from defective parts and workmanship for a minimum of two, (2), years from the date the equipment is placed into service.	
2.4 A complete detailed copy of the basic warranty and extended warranty policy, outlining the terms and conditions, shall be included with the proposal. The warranty terms shall be clearly stated and include all inclusions and exclusions along with expiration dates.	
2.5 <b>OPTION #1:</b> A detailed copy of an additional five, (5), year Manufacturer's Extended Powertrain Warranty (five, (5), years total coverage), along with the coverage and cost to fleet customers, shall be included in the proposal. The Vendor shall provide specific details and costs of the Extended Manufacturer's Powertrain Warranty Options, which shall include, but is not limited to, all internal and external engine manufacturer's components, driveline/axles/ differential, engine exhaust emissions systems and electronic controls and sensors for all components. For the purpose of providing a cost for the extended warranty, the annual average mileage of operation is 20,000 miles. <u>Specify cost of Manufacturer's Extended Powertrain Warranty.</u>	
3. <b>SERVICE FACILITIES:</b> In order to insure that the City will be able to maintain and repair the equipment purchased, the Vendor shall operate a service facility capable of performing most repairs associated with the proposed equipment. This City approved facility shall be located within fifty, (50), miles of the City of Kenosha, Fleet Division and be stocked with common replacement and high wear parts. The Vendor shall provide the name, address and telephone number of the service facility, and the person to contact for service, with their warranty statement.	
4. <b>AWARD AUTHORITY:</b> The City shall be the sole judge of the quality, construction and suitability of the equipment offered in its determination of the successful Vendor.	

<p>5. <b>DESCRIPTION OF EQUIPMENT:</b> A proposal shall be considered only if the Vendor clearly shows, without a doubt, that they are proposing regularly manufactured equipment, tried, proven, and in current use. A list of three, (3), or more users, with like equipment, shall be furnished upon the request of the City, after the proposal opening. <b>PRINTED LITERATURE DESCRIBING THE PARTICULAR EQUIPMENT INCLUDING ACCESSORIES (make, model and manufacturer's rating) SHALL BE INCLUDED WITH THE PROPOSAL.</b></p>	
<p>5.1 The Vendor shall propose the latest model of equipment manufactured, by the concern which they represent. Equipment shall be new and unused. <b>Factory rebuilt equipment or demo units will not be considered.</b></p>	
<p>6. <b>SAFETY EQUIPMENT:</b> The vehicle shall comply with all applicable Federal Motor Vehicle Safety Standards.</p>	
<p>7. <b>SERVICE REQUIREMENTS:</b> The equipment will be used by the City of Kenosha Street Division, for road construction, maintenance and snow removal.</p>	
<p>8. <b>TECHNICAL REQUIREMENTS: All specified features and accessories, listed below, shall be incorporated into the single axle dump truck.</b></p>	
<p>8.1 <b>TYPE:</b> The unit shall be a tandem axle, severe service, dump truck (International HV607, Peterbilt 348, or City approved alternate) with a thirty eight inch, (38"), minimum, setback front axle and be equipped to operate a material spreader with a pre-wetting system, snow plow and snow plow wing. <u>Specify truck manufacturer, model, and year of manufacture.</u></p>	
<p>8.2 <b>GVWR:</b> The unit shall have a minimum, certified GVWR of 60,000 pounds. A GVWR sticker shall be permanently affixed to the vehicle. <u>Specify GVWR.</u></p>	
<p>8.3 <b>FRAME:</b> The chassis frame shall be designed for severe duty use in municipal applications, such as snow plowing, salt/liquid applications, heavy hauling, etc., and have a minimum, 120,000 PSI rating. <u>Specify frame rating.</u></p>	

8.3.1 The frame shall have a minimum, Resist Bend Moment (RBM), of 2,568,400 inch pounds. <u>Specify RBM.</u>	
8.3.2 The frame shall have a minimum, Section Modulus, of 21.4 cubic inches. <u>Specify Section Modulus.</u>	
8.3.3 The unit's wheelbase shall be suitable for a frame mounted, vertical exhaust and 108 inch, cab to trunion (CT) length (or City approved alternate). <u>Specify CT and wheelbase.</u>	
8.3.4 The unit shall have either 20 inch or 22.4 inch, integral frame extensions, for the installation of a snow plow hitch and snow wing post frame. <b>Bolt or weld-on extensions are not acceptable.</b> <u>Specify if different.</u>	
8.3.5 The unit shall have a single, severe duty, frame rail. <u>Specify if different.</u>	
8.3.6 The chassis frame, at the front of the unit, shall be heavy enough to support the wing and plow in the stowed position, with minimal lean to the wing side. <u>Specify if different.</u>	
8.3.7 The clearance from the bottom of the wing mast, to level ground, shall be no less than 8 inches, with the wing and plow fully raised (see item #8.40.7 – Wing Plow). <u>Specify if different.</u>	
8.3.8 The unit shall have a severe service, 30 degree, swept back, front bumper to be of a size and strength to allow for the mounting of a plow. <u>Specify if different.</u>	
8.3.9 The frame shall have either Grade 8 bolt or Huck bolt design. <u>Specify type of fastener used.</u>	
8.4 <b>ENGINE:</b> The unit shall have a MaxxFORCE 9, Cummins ISL, or PACCAR PX9, 330 hp, diesel engine (or City approved alternate). The diesel engine shall have a minimum, 1,000 lb-ft torque @ 1,400 RPM and 330 hp @ 2,200 RPM. <u>Specify engine make, model, displacement, torque and hp @ 2,200 RPM.</u>	

<p>8.4.1 <b>OPTION #2:</b> If Option #2 is selected, the unit shall be supplied with an engine having, a minimum, 350 hp @ 2,200 RPM and 1,150 ft-lb. Torque @ 1,400 RPM. <u>Specify make, model, displacement, hp and torque @ rated RPM and cost of Option #2.</u></p>	
<p>8.4.2 The unit shall have an enabled, electronic, automatic engine shut down system. The engine shutdown system shall include low engine oil pressure, high coolant temperature, low coolant level, and automatic override. <u>Specify if different.</u></p>	
<p>8.4.3 <b>OPTION #3:</b> If Option #3 is selected, the unit shall be delivered with the most current version of the engine manufacturer's diagnostic, maintenance and engine repair software. The CD-ROM software shall be capable of performing all diagnostic checks and parameter adjustments authorized by the engine manufacturer. The software shall be capable of running on a notebook computer with a Windows operating system. The necessary data link cables to interface with the engine control computer shall be included with the software. <u>Specify cost of engine software, Option #3.</u></p>	
<p>8.4.4 The Vendor shall provide training on the use of the engine diagnostic software for all City of Kenosha Fleet Maintenance mechanics. The training shall be "hands on" and will take place at the City of Kenosha Fleet Maintenance Division, at an agreed upon date/time. <u>Specify if different.</u></p>	
<p>8.4.5 The engine shall have an installed 110 volt, 1100 watt, minimum, engine block heater, with a receptacle type plug socket and cover, mounted in a location approved, in advance, by the City. <u>Specify mounting location.</u></p>	
<p>8.4.6 The unit shall have an under hood air intake (snow valve). <u>Specify if different.</u></p>	
<p>8.4.7 The engine shall have a heavy duty, dry type, air cleaner with safety element and restriction indicator. <u>Specify if different.</u></p>	
<p>8.4.8 The engine oil pan shall be constructed of a non-corrosive material or be powder coated to prevent corrosion. <u>Specify corrosion protection method.</u></p>	

<p>8.4.9 The unit shall have an exhaust system with a horizontal muffler, vertical tail pipe with guard. The tail pipe shall be turned out and be mounted on the right side of the cab. <u>Specify if different.</u></p>	
<p>8.5 <b>COOLING SYSTEM:</b> The unit shall have a heavy duty, cross flow radiator, filled with extended life antifreeze and be protected to, a minimum of, -34 degrees Fahrenheit. <u>Specify if different.</u></p>	
<p>8.5.1 The engine cooling fan drive shall be of a direct drive, Horton (or City approved alternate) air actuated, two, (2), speed model. <u>Specify if different.</u></p>	
<p>8.5.2 The radiator shall be mounted above the frame rails. <u>Specify if different.</u></p>	
<p>8.6 <b>TRANSMISSION:</b> The unit shall have an electronically controlled, automatic transmission with six, (6), forward speeds and one, (1), reverse speed (Allison 3500 RDS or other City approved alternate). The transmission shall have a temperature gauge mounted in the cab. The transmission gear selector shall be of a push button type, mounted in or on the dashboard panel. The transmission shall be capable of manual range selection or automatic shifting. The transmission shift pattern shall be illuminated for night use. The transmission shall be factory filled with synthetic fluid approved by Allison. The transmission filler tube/dipstick shall be clearly labeled with the type of fluid used. <u>Specify transmission make and model, and type of fluid used.</u></p>	
<p>8.6.1 The transmission shall be able to withstand the severe service of snow plowing and low ambient temperatures. <u>Specify if different.</u></p>	
<p>8.6.2 The transmission shall have provisions for a direct mount/constant mesh PTO and hydraulic pump. Access to the both PTO openings shall be unobstructed. <u>Specify if different.</u></p>	
<p>8.7 <b>BRAKES:</b> The unit shall have full air, anti-lock brakes, with automatic slack adjusters. <u>Specify if different.</u></p>	

8.7.1 All air lines shall be colored coded and use quick connectors.	
8.7.2 The front brakes shall be air disc. <u>Specify if different.</u>	
8.7.3 The rear brakes shall be 16.5" x 7" with thirty, (30), square inch chambers and dust shields. <u>Specify size of rear brakes and rear brake chambers.</u>	
8.7.4 The unit shall have a minimum, 16.5 CFM, water cooled, air compressor. <u>Specify CFM.</u>	
8.7.5 The unit shall have a Bendix AD-IS air dryer (or City approved alternate). The air dryer shall be installed before the air tanks to minimize water accumulation. <u>Specify if different.</u>	
8.7.7 <b>OPTION #4:</b> If Option #4 is selected, the unit shall have full air, disc brakes, on the drive axle. <u>Specify make, model, and cost of Option #4.</u>	
8.8 <b>FRONT AXLE:</b> The front axle shall have not less than a 20,000 pound, load rating. <u>Specify front axle load rating and manufacturer.</u>	
8.8.1 The front axle shall have "wet hub oil seal" wheel ends. The hubs shall have inspection caps and be factory filled, with a synthetic lubricant. <u>Specify if different.</u>	
8.8.2 The front axle shall have "hub piloted" steel wheel ends. <u>Specify if different.</u>	
8.9 <b>FRONT SUSPENSION:</b> The front axle, suspension springs shall be a multi-stage suspension type, with heavy duty, dual acting, shock absorbers. <u>Specify front axle suspension and load rating.</u>	
8.9.1 The front suspension springs shall have heavy duty bushings and pins. <u>Specify if bushings are greaseable or non-greaseable.</u>	

8.9.2 The front suspension shall have an air bag assist system, on the right side (snow wing location), to compensate for truck lean when the wing is installed. The air bag shall have an in cab control. The air bag control shall include an inflation, indicator gauge located in the cab. <u>Specify if different.</u>	
8.10 <b>REAR AXLE:</b> The rear axle shall not have less than a 40,000 pound, load rating. <u>Specify axle load rating, make, and model of axle and differential.</u>	
8.10.1 The rear axle differential shall be factory filled with a high quality, synthetic gear lubricant and have the lubricant type identified on the axle housings. <u>Specify if different.</u>	
8.10.2 The rear axle shall have a driver controlled, differential lock on both drive wheels with lighted dash mounted controls, in the cab. <u>Specify if different.</u>	
8.10.3 The rear axle shall have “hub piloted” steel wheel ends. <u>Specify if different.</u>	
8.10.4 The rear axle shall have a gear ratio to provide a minimum, top speed of 70 MPH regardless of the engine provided, while maintaining good all around driveability. <u>Specify gear ratio and top vehicle speed.</u>	
8.11 <b>AIR RIDE REAR SUSPENSION:</b> The rear suspension shall be air ride, with a minimum 40,000 pound, load rating and have maximum ground clearance for off road applications. <u>Specify rear suspension load rating and manufacturer.</u>	
8.11.1 The air ride, rear suspension shall be equipped with heavy duty, double acting, shock absorbers. <u>Specify if different.</u>	
8.11.2 The rear suspension, air ride system shall be controlled from the cab, by an air dump switch. The air bag suspension shall have an automatic system to prevent the air bags from “hyper extending” when the body load is dropped	

quickly, such as with loose, dry gravel. <u>Specify if different.</u>	
8.12 <b>STEERING:</b> The unit shall have a tilt, telescopic, steering column and heavy duty, integral, power steering with dual steering boxes. Slave assisted steering is not acceptable. The turning diameter, wall to wall, shall be twenty-eight feet ten inches, (28'10"), maximum. <u>Specify type of power steering system and wall to wall turning diameter.</u>	
8.12.1 The hydraulic pump for the power steering system shall be of the direct drive type, with a remote mounted reservoir, fluid level dipstick, and a replaceable filter. <u>Specify if different.</u>	
8.13 <b>FUEL TANK:</b> The unit shall have an aluminum diesel fuel tank with a minimum, fifty, (50), U.S. gallon capacity, mounted on the left side of the vehicle. The fuel tank straps shall be either aluminum or stainless steel. All cab entry steps shall be aluminum. The fuel tank shall be mounted to provide adequate clearance for use in off highway conditions. <u>Specify if different.</u>	
8.13.1 The unit shall have a DEF tank with a minimum, (5), five, U.S. Gallon capacity, mounted on the left side of the vehicle. The DEF tank shall be mounted to the rear of the fuel tank, <u>The DEF tank shall be clearly labeled to avoid contamination of fluids. Specify if different.</u>	
8.14 <b>WHEELS:</b> The unit shall have front and rear "hub piloted", steel wheels. The wheel size shall be 22.5" x 9" on the front and 22.5" x 8.25" on the rear. <b>One spare wheel for the front of the unit shall be provided with the unit at the time of delivery.</b>	
8.14.1 <u>Specify front wheel size.</u>	
8.14.2 <u>Specify rear wheel size.</u>	
8.14.3 The steer and drive axles shall have high visibility, wheel check indicators installed at all wheel ends and all wheel nuts. <u>Specify if different.</u>	

<p>8.15 <b>TIRES:</b> All tires on the unit shall be tubeless radials manufactured by Goodyear (or other City approved alternate). The front tires shall be Goodyear model G289 (315/80R22.5) and the rear tires shall be Goodyear model G177 (11R22.5) traction tread. The front tires shall be 20 ply and rear tires shall be 16 ply.</p>	
<p>8.15.1 <u>Specify front tire make, model, and size.</u></p>	
<p>8.15.2 <u>Specify front tire load range.</u></p>	
<p>8.15.3 <u>Specify rear tire make, model, and size.</u></p>	
<p>8.15.4 <u>Specify rear tire load range.</u></p>	
<p>8.16 <b>FRONT END:</b> The unit shall have a full tilt, fiberglass, front end with a stationary grille and a full gravel guard, located behind the grill. <u>Specify if different.</u></p>	
<p>8.17 <b>INSTRUMENTS:</b> The unit shall have the following gauges and warning indicators in the cab.</p>	
<p>8.17.1 Engine coolant temperature gauge.</p>	
<p>8.17.2 High temperature warning light and alarm.</p>	
<p>8.17.3 Engine oil pressure gauge.</p>	
<p>8.17.4 Low engine oil pressure warning light and alarm.</p>	
<p>8.17.5 Speedometer.</p>	
<p>8.17.6 Odometer.</p>	
<p>8.17.7 Electronic engine hour meter.</p>	

8.17.8 High engine oil temperature alarm.	
8.17.9 Transmission oil temperature gauge with warning light.	
8.17.10 Dual air pressure gauge(s) with audible low air pressure alarm.	
8.17.11 Fuel gauge.	
8.17.12 Voltmeter.	
8.17.13 Tachometer.	
8.17.14 DEF gauge.	
8.17.15 Low hydraulic oil level light and alarm, supplied by the body Vendor.	
8.17.16 All gauges shall be lighted and positioned for good visibility from the driver's seat. <u>Specify if different.</u>	
8.18 <b>ELECTRICAL SYSTEM:</b> The unit shall have a twelve, (12), volt electrical system with a 160 amp, minimum, alternator. <u>Specify alternator size in amps.</u>	
8.18.1 The complete, chassis electrical system shall have a built in, self diagnosis provision. <u>Specify if different.</u>	
8.18.2 The unit shall have three, (3), batteries with approved hold downs, for a combined total of 1,950 CCA (minimum) @ 0 degrees Fahrenheit. <u>Specify number of batteries, mounting location and CCA @ 0 degrees Fahrenheit.</u>	
8.18.3 The unit shall have auto reset circuit breakers, where applicable, located in one main panel. <u>Specify all</u>	

electrical items protected by fuses.	
8.18.4 All vehicle lighting shall comply with Federal Motor Vehicle Safety Standard (FMVSS) 108. <u>Specify if different.</u>	
8.18.5 All wiring harnesses shall be numbered with quick disconnect connectors, and shall be accessible for maintenance. <u>Specify if different.</u>	
8.18.6 A Safe-T-Alert 2000 Series-Model STA20502-G (or City approved alternate) back-up alarm shall be installed at the rear of the chassis. <u>Specify if different.</u>	
8.18.7 The unit shall have provisions for the body up-fitter to perform the necessary electrical connections to the chassis wiring system. <u>Specify if different.</u>	
8.18.8 The unit shall have a battery disconnect switch with a six, (6), minute delay timer (Flaming River #FR1052 and #FR1055 or other City approved alternate) installed per manufacturer's instructions. <u>Specify if different.</u>	
8.18.9 The unit shall be equipped with halogen, high and low beam, sealed headlights; front and rear directional lights with hazard warning switch; dual tail and stop lights; cab clearance lights; backup lights; and a cab interior light with switch. <u>Specify if different.</u>	
8.18.10 The unit shall have a "body up" light and audible alarm, supplied by the body manufacturer, installed in the cab, in view of the operator. <u>Specify if different.</u>	
8.18.11 All electrical system items shall be properly protected and all add-on accessories shall comply with the City's "ACCESSORY WIRING SPECIFICATIONS", copy attached. <u>Specify if different.</u>	
8.18.12 All chassis lighting shall be manufacturer installed, LED lighting, with the exception of the headlights. <u>Specify if different.</u>	

<p>8.18.13 The unit shall be pre-wired from the factory for a two way, mobile radio. The wiring shall be fuse protected. <u>Specify if different.</u></p>	
<p>8.19 <b>LIGHTING-WARNING:</b> One, (1), SoundOff Signal 6” Oval Gen 2 LED strobe-Model EOVREBZA with rubber grommet (or other City approved alternate), shall be mounted on the left front and one, (1), on the right front of the dump body, in a cutout in the front face of the cab protector shield. The strobe flash pattern shall be an alternating pattern. The final installed position of the strobes shall be determined, in advance, by the City. <u>Specify if different.</u></p>	
<p>8.19.1 One, (1), SoundOff Signal 6” Oval Gen 2 LED strobe-Model EOVREBZA with rubber grommet (or other City approved alternate), shall be mounted on the left rear and one, (1), on the right rear of the dump body, in a cutout near the top of the corner body post. The strobe flash pattern shall be an alternating pattern. <u>Specify if different.</u></p>	
<p>8.20 <b>LIGHTING-PLOW/WING:</b> Two, (2), Truck-Lite Model 80800 (or other City approved alternate) Snow Plow lights shall be mounted, on the tilt hood fenders, with stainless steel brackets. The base of the plow lights shall be level with the center line of the hood assembly and not interfere with the full tilting of the hood. The directional feature of the plow lights must function. The plow lights shall function as forward lighting when the plow is installed and shall be aimed as needed. The plow light switch shall be located on the Patrol Commander console. <b>NOTE:</b> If the mounting of the plow lights on the fenders with brackets is not possible due to the hood design, the lights shall be mounted on the hood, on each side of the grille. All mounting brackets and hardware shall be stainless steel. The final plow light mounting location shall be approved, in advance, by the City. <u>Specify if different.</u></p>	
<p>8.20.1 One, (1), SoundOff Signal, Gen 3 LED work light, Model EWLA1000DBDF0W (or other City approved alternate) shall be mounted on the right side mirror bracket, as a wing plow light. Final mounting location shall be approved, in advance, by the City. <b>NOTE:</b> The wing plow light and the wing tip strobe light shall be controlled with a single switch and be independent from all other lighting. <u>Specify if different.</u></p>	

<p>8.20.2 One, (1), Whelen-Model WPLOW1A Wing Plow Tip strobe (or other City approved alternate) shall be installed on the snow plow wing tip, per Whelen installation procedures. This strobe model is for use when the wing is in operation. <b>NOTE:</b> The wing tip strobe light and wing plow light shall be controlled with a single switch and be independent from all other lighting. <u>Specify if different.</u></p>	
<p>8.20.3 One, (1), SoundOff Signal, Gen 3 LED work light, Model EWLA1000DBDF0W (or other City approved alternate) shall be mounted on the rear of the salter, as a salter/spinner light. Final mounting location shall be approved, in advance, by the City. The salter/spinner light shall be controlled by on of the auxiliary switches mounted in the cab. <u>Specify if different.</u></p>	
<p>8.20.4 All auxiliary lighting shall be controlled by CLEARLY LABELED SWITCHES on the Patrol Commander console and be adequately rated for the current usage. <u>Specify if different.</u></p>	
<p>8.21 <b><u>LIGHTING-CHASSIS/BODY:</u></b> SoundOff Signal O6 Premium Oval LED Stop/Tail/Turn-Model ECV062STT (or other City approved alternate) rear lighting shall be installed at the rear of the dump body, on the upright body corner posts. <u>Specify if different.</u></p>	
<p>8.21.1 An additional set of SoundOff Signal O6 Premium Oval LED Stop/Tail/Turn-Model ECV062STT with SoundOff Signal O6 Oval Backup/Reverse-Model ECV062B2W LED lights (or other City approved alternate) shall be installed on the bottom of the dump body corners, behind the rear tires, below the dump box tailgate, on the lower rail. Stainless steel shredder plates shall be installed above the recessed lights. The location shall be approved, in advance, by the City, prior to installation. <u>Specify if different.</u></p>	
<p>8.21.2 All body side marker / clearance lights shall be SoundOff Signal Premium LED 200 Series lights (or other City approved alternate). <u>Specify if different.</u></p>	
<p>8.21.3 All body lighting shall be rubber grommet mounted.</p>	

No surface mount lighting shall be used unless approved, in advance, by the City. <u>Specify if different.</u>	
8.21.4 All chassis lighting shall be manufacturer installed, LED lighting, with exception of headlights. <u>Specify if different.</u>	
8.21.5 All electrical system items shall be properly protected and all add-on accessories shall comply with the City's "ACCESSORY WIRING SPECIFICATIONS", copy attached. <u>Specify if different.</u>	
8.21.6 Vendors may contact the following lighting sales representatives' regarding inquiries about the specified lights. SoundOff Signal – Tom Grubba, Regional Sales Manager-Cell: (616)889-7697; or Mike Greenburg, Sales-Cell: (708) 751-6302; Wholesale Direct (Whelen/Truck-Lite) Sales-Cell: (708) 751-6302.	
8.22 <b>CAB:</b> It is the intent, by the City of Kenosha, for these units to have a 20-year service life. If a steel cab is proposed, the successful Vendor shall provide complete Ziebart (or other City approved alternate) rustproofing. In addition to the underside of the cab, all interior panels and interior flooring shall be rustproofed. All interior panels, including the headliner, back panels, seats and floor covering, shall be removed to ensure full coverage of all sheet metal. <u>Specify cab material and rustproofing used.</u>	
8.22.1 The cab shall have a cab floor that is flat, to facilitate the installation of the Patrol Commander controls. <u>Specify if different.</u>	
8.22.2 The unit shall have a heavy duty, heater and defroster. <u>Specify if different.</u>	
8.22.3 The unit shall have factory installed, air conditioning, with a serviceable, cabin air filter. <u>Specify if different.</u>	
8.22.4 The unit shall have tinted, safety glass throughout the cab. <u>Specify if different.</u>	

8.22.5 The unit shall have seat belts, with shoulder straps. <u>Specify if different.</u>	
8.22.6 The unit shall have a cigar lighter, ashtray, and dual sun visors. <u>Specify if different.</u>	
8.22.7 The unit shall have a factory installed, AM/FM, Bluetooth compatible, radio with clock. <u>Specify if different.</u>	
8.22.8 The unit shall have painted, aerodynamic, motorized, heated, breakaway mirrors with heated, convex mirrors (or City approved alternate). <u>Specify if different.</u>	
8.22.9 The unit shall have electric, intermittent, windshield wipers with washers. <u>Specify if different.</u>	
8.22.10 The unit shall have a driver's side, air suspension bucket seat, with a right side, fold-able arm rest. <u>Specify make and model of driver's seat.</u>	
8.22.11 The unit shall have a passenger's side, non-suspension bucket seat, with a left side, fold-able arm rest. <u>Specify make and model of passenger's seat.</u>	
8.22.12 The unit shall have an air horn, mounted on the frame or under the hood. The unit shall also have heavy duty, dual, electric horns. <u>Specify if different.</u>	
8.22.13 The unit shall have an air ride cab (or other City approved alternate). <u>Specify if different.</u>	
<b>8.23 <u>HYDRAULIC CONTROL SYSTEM SPECIFICATIONS:</u></b> The hydraulic system shall be capable of centrally operating all the hydraulic functions of the snow plow, snow plow wing, material spreading equipment, liquid application systems, dump body and any other on-vehicle systems requiring hydraulic control. <u>Specify if different.</u>	
<b>8.24 <u>HYDRAULIC PUMP/CONSTANT MESH PTO:</u></b> The	

unit shall have a Force America TXV92 axial piston pressure and flow compensated, load sensing, hydraulic pump. The pump shall deliver 23.7 GPM @ 1000 RPM engine speed, with 4,800 PSI continuous pressure. A two inch, (2"), suction line and a half-inch, (1/2"), control drain line shall be plumbed to the reservoir. The pump outlet shall have a one inch, (1"), high pressure, steel, ball valve. A constant mesh PTO, OMFB Series (or other City approved alternate), shall be mounted to the Allison transmission to drive the pump. Specify if different.

**8.25 HIGH PRESSURE HYDRAULIC FILTER:** The unit shall have a high-pressure filter plumbed between the hydraulic pump and the control valve assembly. The filter shall be a twenty-five, (25), micron absolute, and be rated for 6,000 PSI. The hydraulic filter shall be equipped with visual and electrical by-pass indicators and be a model HP17125VG30EPUG5S2AE7050P (or other City approved alternate). The electrical indicator shall be wired to a warning light in the heads up display. One, (1), spare high pressure, hydraulic filter shall be supplied, with each unit, at the time of delivery. Specify if different.

**8.26 HYDRAULIC VALVE CONTROL CENTER:** The hydraulic valve control center shall be a Force America Partol Commander Ultra 6100 seat mount (or other City approved alternate), modular, nine, (9), axis, multi-stick, fully proportional control to operate all hydraulic functions. The controller shall be of a modular design. The multi-stick, communication electronics shall have the capability to control nine, (9), proportional outputs simultaneously. The control shall have a three, (3), stick configuration. The joy stick control center shall be attached to the right side, of the driver's air seat, and shall remain in an operating position regardless of seat position, adjustment or travel. The multi-stick control shall have a momentary push button at the top of the hoist stick, to provide hoist interlock. The multi-stick control shall have a solid state, red LED labeled, "Hoist", which shall illuminate when the driver disengages the hoist interlock. The "Hoist" LED shall remain illuminated while the hoist is in operation. The "Hoist" LED shall be integrated into the communication control circuit and shall time out, after a period of hoist inactivity. The multi-stick communication hardware/software shall include four,(4), integral, float options. The integral float programming shall have a four, (4), axis, functional, float less design and offer up to a five, (5), million cycle life. For ease of service, the multi-stick control shall have the following easily accessible at the valve drive module: nine, (9), sets of MIN/MAX adjustments; output status indicator LED's

for each output; and nine,(9), output error status indicators, with flashing error codes. The multi-stick control shall have solid state, overload protection to insure longevity. The unit shall have a separate cable assembly, with plug ends, that connect the controller to the valve connection and the main power connection. The center shall have color coded wiring throughout. A heavy duty, pre-wired, valve harness shall be included for the cylinder function, valve assembly and the auger reverse, spinner, dual valve assembly. Specify if different.

**8.27 SPREADER CONTROLS:** The unit shall have a Force America Ultra SSC6100 Gen 5 Can-Bus (or other City approved alternate), electronic spreader control designed for precise, closed loop control of granular, pre-wet liquid and anti-icing applications and shall have the ability to control direct application of liquid when the optional equipment is selected. The electronic spreader control shall have a field replaceable, battery back up, that protects memory functions. The data memory shall be 512K RAM, minimum. For data logging, the unit shall retain four thousand, (4,000), events, minimum. The electronic spreader firmware shall be upgradeable, by downloading files from the manufacturer's web site, at no charge to the City, for the life of the control unit. The unit shall be protected from both, reverse polarity and over voltage. The spreader "heads up" display shall be mounted on the truck dash, within easy view of the driver. The display shall have four, (4), warning light options for: low oil level, dump body up, hydraulic oil temperature and hydraulic filter bypass. The spreader control shall be capable of downloading data to a printer or PC, interface with optional road temperature sensors, liquid application systems and AVL equipment. Specify if different.

**8.28 SWITCH CONSOLE:** The switch console shall be a Force America DK8000 (or other City approved alternate) containing eight, (8), 15 amp switches for controlling eight, (8), separate auxiliary functions. Each switch shall be protected by individual circuit breakers. The switch console shall have changeable nomenclatures and be fully backlit with solid state LED's. The console shall have both internal and external, color coded wiring. The external power harness shall have an eight, (8), gauge, minimum, power wire. The remaining wiring, in the harness, shall be fourteen, (14), gauge wire, minimum. The console shall be powered through a relay, that is powered by the ignition circuit, to prevent battery drainage. Specify if different.

**8.29 HYDRAULIC VALVE:** The hydraulic valve segments shall be a Force America, Add-A-Fold (or other City approved alternate) model, of modular design. Each hydraulic function shall have an individual manifold, stacked together, to form the manifold base. The manifold base shall consist of an inlet section with SAE #16 inlet porting, SAE #20 outlet porting, and SAE #4 load sense porting. There shall be a main system relief, in the inlet section, to protect the system from high pressure, in the case of a pump compensator failure. The dump body manifold shall be stacked next to the inlet section and be capable of 40 GPM, with SAE #12 porting. The hydraulic control valves shall be pulse width modulated and be proportionally controlled. Each hydraulic valve segment shall be individually mounted to the manifold base assembly, and be serviceable, without removing any hydraulic hoses or any other hydraulic valve segments. Each hydraulic valve segment shall have individual, pressure compensation to achieve independent, simultaneous operations. All segments shall have heavy duty, continuous duty coils and connections with Din connectors. All coils shall operate at 12 VDC and require a maximum, 1,400 milli-amps. Each segment shall be equipped with a manual override, except for the auger and spinner sections. The dump body segment shall be rated to 40 GPM, with all other segments rated to 20 GPM. If a double acting hoist is utilized, the dump body segment shall be equipped with a down side relief, to protect the body down function. The relief valve shall be set to the hoist manufacturer's specifications. The valve segments are to be arranged as follows: Hoist, 4-way with 500 PSI down side work port relief valve with pressure gauge; Plow lift, zero leak 3-way; Plow angle, 4-way; Wing heel/toe, 4-way with external sequencing valves; Auger, 4-way; Spinner, 2-way; Pre-wet, 2-way; Anti-ice, 2-way. Specify if different.

**8.30 RESERVOIR/VALVE ENCLOSURE:** The reservoir/valve enclosure shall be a Force America VT35 (or other City approved alternate). The hydraulic reservoir shall be constructed of ten, (10), gauge, stainless steel, minimum, and have a thirty-five, (35), U.S. gallon capacity, minimum. All mounting hardware shall be supplied by the reservoir supplier. The valve enclosure shall utilize gasket-less technology. The enclosure lid shall be removable without the use of tools. The reservoir supplier shall provide all valve fittings and the pump return line, from the valve to the filter assembly. The directional control valve shall be accessible from all sides, without the use of tools. The reservoir suction port shall have a two inch, (2"), full flow, brass, ball valve. Specify if different.

<p>8.31 <b>HYDRAULIC OIL FILTER:</b> The hydraulic oil filter shall be a model TEF3131016VG16SP-UG60E115 (or other City approved alternate), with visual and electrical bypass indicators. The hydraulic oil filter shall be mounted at the reservoir. <u>Specify if different.</u></p>	
<p>8.32 <b>SNOW WING LOCK:</b> The snow wing, heel cylinder shall be equipped with an anti-drift, wing lock device. The wing lock shall be supplied, by the wing cylinder supplier. <u>Specify if different.</u></p>	
<p>8.33 <b>SNOW WING DECEL:</b> The snow wing, heel cylinder shall have a decelerating, hydraulic cylinder, to slow the snow wing when raising, to prevent possible cab damage. The decelerating cylinder shall be a model J9332-BA-WC (or other City approved alternate). <u>Specify if different.</u></p>	
<p>8.34 <b>SNOW WING SEQUENCING:</b> The snow wing shall be operated by one valve section. Two, (2), sequencing valves, one, (1), for the wing toe function and one, (1), for the wing heel function shall be plumbed into the wing hydraulic circuit. Lowering sequence: heel first, then toe. Raising sequence: Toe first, then heel. The valves shall be Sun Hydraulics SCCA, with aluminum bodies and contain an adjustable cartridge. The sequencing shall be accomplished by a single action, by the operator. <u>Specify if different.</u></p>	
<p>8.35 <b>HYDRAULIC LINES / PLUMBING:</b> The hydraulic suction line shall be two inch, (2"), minimum, and be secured with heavy duty, banding straps. All pressure hoses shall have swivel fittings on both ends, with a SAE 100-R2 rating, minimum. All hydraulic lines shall be routed to minimize interference with body and chassis equipment. Support brackets, grommets and band straps shall be used to protect hydraulic lines from damage. The maximum spacing between support clamps, on hydraulic lines, shall be twenty-four inches, (24"). <b>The use of non-hydraulic pipe fittings, is not acceptable.</b> <u>Specify if different.</u></p>	
<p>8.35.1 The body installer shall provide and install, all necessary components, fittings, hydraulic pressure and return hoses, required for a material spreader with pre-wetting and anti-</p>	

<p>icing capabilities to operate, with the use of the Force America electronic spreader controls, with the use of stainless steel lines to the front and rear of the chassis. <u>Specify if different.</u></p>	
<p>8.35.2 The chassis hood shall be able to be tilted for maintenance and inspections, without removing or repositioning any plow or wing hydraulic connections. <u>Specify if different.</u></p>	
<p>8.35.3 The body installer and City of Kenosha shall discuss the mounting location of cab valve controls, switch console and front mounted snow plow/wing plow hydraulic couplers prior to installation. The vehicle will not be accepted if these components are installed without City authorization. <u>Specify if different.</u></p>	
<p>8.36 <b>STAINLESS STEEL DUMP BODY:</b> The chassis shall have a heavy duty, 304 stainless steel dump body, measuring thirteen feet, (13'), long by eighty-six inches, (87"), wide, installed. All stainless steel, on the dump body, shall be 304 stainless steel, unless otherwise specified. <u>Specify manufacturer, model, length and width of dump body.</u></p>	
<p>8.36.1 The dump body shall have a 9.8 cubic yard, minimum, struck capacity, without sideboards. <u>Specify struck capacity of dump body.</u></p>	
<p>8.36.2 The dump body shall have a 12.1 cubic yard, minimum, heaped capacity, when equipped with sideboards. <u>Specify heaped capacity.</u></p>	
<p>8.36.3 The dump body shall have thirty-six inch, (36"), high sidewalls, fabricated from seven, (7), gauge, 304 stainless steel, with 35,000 PSI yield and 85,000 PSI tensile strength. <u>Specify if different.</u></p>	
<p>8.36.4 The dump body shall have a weld-on dirt shedding, lower rub rail, fabricated from seven, (7), gauge minimum, hi-tensile stainless steel. <u>Specify if different.</u></p>	
<p>8.36.5 The dump body shall have a fifty-three inch, (53"), high, front head sheet, fabricated from seven, (7), gauge, 304 stainless steel, with a 35,000 PSI yield and 85,000 PSI tensile</p>	

strength. <u>Specify if different.</u>	
8.36.7 The dump body shall have a cab shield, fabricated from 304 stainless steel. <u>Specify if different.</u>	
8.36.8 The rear posts of the dump body, shall be fabricated from 3/16" thick, 304 stainless steel, minimum. The rear of the dump body shall be forty-four inches, (44"), high. <u>Specify if different.</u>	
8.36.9 The tailgate of the dump body, shall be fabricated from seven, (7), gauge, 304 stainless steel, minimum. The tailgate shall have a nine, (9), panel design, with a six inch, (6"), face on vertical bracing, minimum. All horizontal bracing shall be dirt shedding. <u>Specify if different.</u>	
8.36.1 The tailgate release, lock linkage and hinge pins on the dump body shall be 304 stainless steel, with greaseable bushings on both sides, at each linkage point, for lubrication and maintenance. <u>Specify if different.</u>	
8.36.11 The dump body floor shall be fabricated from 1/4" thick, minimum, AR400 Brinell (200,000 PSI tensile strength) sheet steel. <u>Specify if different.</u>	
8.36.12 The dump body shall have oak hardwood, side boards, bolted into the front and rear, 304 stainless steel, side board pockets, with stainless steel fasteners. The sideboards shall be twelve inches, (12"), high and two inches, (2"), thick, minimum. <u>Specify if different.</u>	
8.36.13 The dump body sides shall have two, (2), weld on, dirt shedding, horizontal braces. <u>Specify if different.</u>	
8.36.14 The dump body shall have a nine inch, (9"), side to floor radius joiner, fabricated from seven, (7), gauge minimum, 304 stainless steel. <u>Specify if different.</u>	
8.36.15 The dump body shall have a dirt shedding, boxed, top rail. <u>Specify if different.</u>	

8.36.16 The dump body under structure shall be of a western style, cross member-less design, to prevent floor “wash-boarding” and to provide easier cleaning of the under structure. <u>Specify if different.</u>	
8.36.17 The dump body shall have eight inch, (8”), 18.4 lb. ft., I-beam long members. <u>Specify if different.</u>	
8.36.18 The dump body shall have a grease-less rear hinge, with composite bushings and stainless steel pivot pins. <u>Specify if different.</u>	
8.36.19 The dump body shall have 3/8” diameter, stainless steel, spreader chains and heavy duty, reinforced stainless steel chain holders, for the tailgate. <u>Specify if different.</u>	
8.36.20 The dump body shall have a full and continuous welded, body shell and tailgate. <u>Specify if different.</u>	
8.36.21 The dump body shall have a heavy duty, stainless steel, self locking, bottom fold up ladder, at the left front of the dump body. When folded, the ladder shall be flush with the bottom of the side rail. <u>Specify if different.</u>	
8.36.22 The dump body shall have stainless steel, grip strut steps above the left and right rear wheels, with grab handles, above the steps. Final location to be approved, in advance, by the City. <u>Specify if different.</u>	
8.36.23 The dump body shall have stainless steel, grip strut steps at the front, on both sides of the body, with grab handles, above the steps. <u>Specify if different.</u>	
8.36.24 A dump body, “Body Up” indicator light, supplied by the manufacturer, shall be installed, in the salter controller, so that it is easily visible from the driver's seat. <u>Specify if different.</u>	
8.36.25 The dump body shall have stainless steel, shovel holders, SH675SS (or other City approved alternate), attached	

<p>with stainless steel hardware, to stainless steel mounting plates, welded to the left and right sides of the dump body. The City will provide a long handle shovel, for proper fitment. <u>Specify if different.</u></p>	
<p>8.36.26 The stainless steel dump body shall not be top coated with primer or paint. <u>Specify if different.</u></p>	
<p>8.37 <b>DUMP BODY HOIST:</b> The dump body shall have a NTEA Class 80, heavy duty, double acting, 31.1 ton capacity, telescopic cylinder, MailHot CS130-5.5-3DA (or other City approved alternate). The hoist shall have a fifty, (50), degree dump angle, with composite, grease-able, pivot points. <u>Specify if different.</u></p>	
<p>8.38 <b>OPTION #5:</b> If Option #5 is selected, the unit shall have a Rollrite All Aluminum Electric Tarp System, Model 400 series (or other City approved alternate) installed. The tarp system shall not interfere with the load area. <u>Specify make and model and cost of tarp system proposed.</u></p>	
<p>8.38.1 The tarp spool shall be mounted on the front of the cab shield to keep the tarp out of the loading zone. <u>Specify if different.</u></p>	
<p>8.38.2 The tarp pivot shall be mounted externally on the body, flush with the bottom of the horizontal dump body rail. <u>Specify if different.</u></p>	
<p>8.38.3 The tarp bow shall be angled with an offset to keep the bow out of the loading zone. <u>Specify if different.</u></p>	
<p>8.38.4 The tarp system shall have Super Tough mesh for debris applications which is heavier and stronger than the standard Premium mesh. <u>Specify if different.</u></p>	
<p>8.38.5 The control for the tarp shall be installed in the cab, and labeled for easy access by the operator while seated in the seat. All wiring for the tarp system shall be routed, secured, fused and identified per manufacturer's recommendations. <u>Specify if different.</u></p>	

<p><b>8.39 CHASSIS FENDERS:</b> The unit shall have a set of Minimizer fenders, MIN4000 Tandem Axle, mounted with B4578BTSA Stainless Steel Bolt-On kit (or other City approved alternate), installed on the chassis frame rail. The unit shall not have any rear mounted mudflaps. <u>Specify if different.</u></p>	
<p><b>8.40 WING PLOW:</b> The unit shall have a front mounted, nine foot, (9'), long, cutting edge, Wausau Patrol Wing or Monroe Patrol Wing (or other City approved alternate). The top edge of the discharge end shall not extend past the right cutting edge (mailbox cut), for the purpose of standardization. <u>Specify make and model of wing.</u></p>	
<p>8.40.1 The wing shall be a heavy duty model. The wing shall be twenty-six inches, (26"), minimum, high at the toe and thirty-four inches, (34"), high at the heel. <u>Specify height in inches, at the toe and heel.</u></p>	
<p>8.40.2 The wing shall have independent, hydraulic, raise and lower functions, for the heel and toe. Refer to Section 8.34 for the details regarding wing sequencing. <u>Specify if different.</u></p>	
<p>8.40.3 The wing shall have a split trip edge. One, (1), set of carbide cutting edges, with cover blades and a heel curb guard shall be installed on the wing, with Grade 8 fasteners. <u>Specify length of each cutting edge segment.</u></p>	
<p>8.40.4 The wing shall have an adjustable, single rear, push arm, mounted an angle across the frame rails or above the frame, for improved ground clearance. The mounting shall be heavily reinforced, to prevent bending or damage, even under the most severe plowing conditions. <u>Specify if different.</u></p>	
<p>8.40.5 The wing shall have a plow edge marker attached on the right side of the unit. <u>Specify if different.</u></p>	
<p>8.40.6 The patrol wing shall be mounted on a Monroe Para-Glide Wing post (or other City approved alternate). The chassis hood must tilt fully forward, without requiring disconnecting, removal or shifting of the wing mast assembly.</p>	

<u>Specify if different.</u>	
8.40.7 The front wing post assembly shall be adjusted, to maximize distance from the ground, eight inches, (8”), minimum, but low enough to allow the cutting edge to contact the pavement along the entire length of the cutting edge. The wing post height shall allow for full cutting edge wear, along the entire length of the cutting edge. <u>Specify if different.</u>	
8.40.8 The wing assembly shall be installed to allow adequate clearance, for the main snow plow, to swing fully to the right plow stop, without contacting the wing moldboard or post. <u>Specify if different.</u>	
8.40.9 The hydraulic hose connections from the wing to the chassis shall be fitted with stainless steel, quick disconnect fittings. <u>Specify if different.</u>	
8.40.10 The unit shall have a snow wing bumper stop installed, on the wing structure (or other City approved location), to prevent the wing moldboard from contacting the cab, in the event that the moldboard is forced upward. <u>Specify if different.</u>	
8.40.11 The unit shall have a safety chain, with grab hook, or other manual device, to secure the snow wing in a fully stowed position, to prevent the snow wing from dropping, in the event of a hydraulic failure. <u>Specify if different.</u>	
8.40.12 The wing assembly shall be painted the same color as the snow plow and chassis cab, regardless of the snow wing manufacturer. <u>Specify if different.</u>	
8.41 <b>OPTION #6:</b> If Option #6 is selected, the Vendor shall supply a new, Wausau model MF 5.4, snowplow; with built in snow deflector, mounted plow markers, hydraulic angling and all aluminum links. <u>Specify cost of Option #6.</u>	
8.41.1 The snow plow shall have stainless steel bearing block u-bolts, stainless steel fastening plates, and stainless steel lock nuts installed instead of standard mild steel. <u>Specify if different.</u>	

8.41.2 The snow plow shall have all aluminum upper and lower links installed. <u>Specify if different.</u>	
8.42 <b>FRONT SNOW PLOW MOUNTING:</b> If Option #6 is not selected, the City will supply an equivalent, used, MF 5.4 snowplow for the units. The Vendor shall install the snow plows, controls and hydraulic connectors. The snow plows shall be mounted to a flat plate, Wausau model SQH Quick Hitch, secured to the truck chassis. The “Quick Hitch” and bracing shall be fabricated and installed, per Wausau specification, for proper plow mounting, operation and longevity. The snow plow chassis mount shall be designed, fabricated and installed, so the MF 5.4 parallelograms are parallel to the ground, when the plow is in the normal plowing position, to allow the cutting edge to contact the pavement along the entire length, <b>for complete cutting edge wear.</b> All existing City of Kenosha Wausau MF 5.4 snow plows must be able to attach to the Quick Hitch plate, without any modifications. <b>NO EXCEPTIONS.</b> <u>Specify if different.</u>	
8.42.1 The Wausau SQH Quick Hitch shall have a latch mechanism, to allow the snow plow to be installed and removed, without tools. <u>Specify if different.</u>	
8.42.2 The snow plow shall be painted the same color as the snow wing and chassis cab. <u>Specify if different.</u>	
8.43 <b>CAMERA SYSTEM:</b> The unit shall have an installed backup camera and wing camera, wired to display in the salter control monitor. <u>Specify if different.</u>	
8.43.1 The unit shall be have a backup camera, mounted in a stainless steel enclosure, at the rear of the unit. Final installed location to be determined by the City, prior to installation. The camera provided shall be a full color, Sony Super HAD CCD HC IR250 Series, Infrared Color Camera (or other City approved alternate). <u>Specify make and model of cameras.</u>	
8.43.2 The unit shall have a wing camera, mounted inside the cab, at the top rear of the passenger window. Final installation to be determined by the City, prior to installation. The	

camera shall be of the same make and model as the backup camera installed on the unit. <u>Specify if different.</u>	
8.43.3 The camera shall have a 100% weather and salt resistant housing. <u>Specify if different.</u>	
8.43.4 The camera shall have an internal heating system which activate in cold temperatures. <u>Specify if different.</u>	
8.43.5 The camera and cable connections shall be designed for the toughest on and off road environments and meet military specifications. <u>Specify if different.</u>	
8.43.6 The camera shall be capable of either normal or mirror images. <u>Specify if different.</u>	
8.43.7 The unit shall have a heavy duty, anti-vibration camera brackets, with sun shields. <u>Specify if different.</u>	
8.43.8 The camera shall have a minimum two, (2), year factory warranty. <u>Specify if different</u>	
8.43.9 The camera shall have a minimum field of view of 130 degrees. <u>Specify field of view.</u>	
8.43.10 The camera shall have a minimum resolution of 420 TV lines. <u>Specify if different.</u>	
8.43.11 The camera shall have an illumination rating of 0.1 Lux at F2.0/f=2.9mm or 0 Lux when LED activated. <u>Specify if different.</u>	
8.43.12 The camera shall have an operating temperature rating between -30 degrees Centigrade and 60 degrees Centigrade. <u>Specify if different.</u>	
8.43.13 The camera shall have a storage temperature rating between -50 degrees Centigrade and 60 degrees	

Centigrade. <u>Specify if different.</u>	
8.43.14 The camera shall have a picture element of NTSC:270,000 PAL:320,000. <u>Specify if different.</u>	
8.43.15 The camera shall have a 1/3" Sony Super HAD Color image sensors. <u>Specify if different.</u>	
8.43.16 The camera shall be connected to the cab mounted, two, (2), channel, salter controller color monitor (or other City approved alternate). <u>Specify make and model of monitor.</u>	
8.43.17 The color monitor shall be no less than ten inches, (10"), be LED back lit, touchscreen and have audio capability. <u>Specify if different.</u>	
8.43.18 The monitor shall be designed for the toughest on and off road environments and have a rainproof, rubber, water resistant housing (IP65). <u>Specify if different.</u>	
8.43.19 The monitor mount shall have a built in sun shield and have an extreme duty, vibration resistant (10G) rating. <u>Specify if different.</u>	
8.43.20 The monitor shall have a minimum two, (2), year factory warranty. <u>Specify if different.</u>	
8.43.21 The monitor shall have a minimum resolution of 800 x (RGB) x 480. <u>Specify if different.</u>	
8.43.22 The monitor shall have a minimum, LCD brightness rating of 400CDM2. <u>Specify if different.</u>	
8.43.23 The monitor shall have a shock rating of no less than 10G. <u>Specify if different.</u>	
8.43.24 The monitor shall have a screen mode no less	

than 16.9 wide screen. <u>Specify if different.</u>	
8.43.25 The monitor shall have a minimum field of view of 50 degrees top / 70 degrees bottom / 70 degrees left / 70 degrees right. <u>Specify if different.</u>	
8.43.26 The monitor shall have a reverse parking grid display, with an on-off feature. <u>Specify if different.</u>	
8.43.27 The monitor shall have a rated operating temperature range between -20 degrees Centigrade and 60 degrees Centigrade. <u>Specify if different.</u>	
8.43.28 The monitor shall have a rated storage temperature range between -30 degrees Centigrade and 85 degrees Centigrade. <u>Specify if different.</u>	
8.44 <b>OPTION #7:</b> If Option #7 is selected, the Vendor shall supply a new, stainless steel V-Box salt spreader with single auger discharge, a stainless steel bolt on spinner assembly, and pre-wet liquid system installed. <u>Specify make, model and cost of Option #7.</u>	
8.44.1 The spreader will be constructed of seven, (7), gauge, minimum, stainless steel. <u>Specify if different.</u>	
8.44.2 The spreader shall have heavy duty, 4 bolt flange bearings, with remote lube lines to the rear of the unit. <u>Specify if different.</u>	
8.44.3 The spreader will include a chain binder kit for attachment to the dump body, and will use the tailgate latch to secure at the rear, lower of the unit. <u>Specify if different.</u>	
8.44.4 The spreader shall have a minimum liquid capacity of 225 gallons, with a minimum of two, (2), spray nozzles at the discharge of the auger, entering the spinner chute. <u>Specify if different.</u>	

<p>8.44.5 The spreader shall have a non-corrosive enclosure to house the pre-wet hydraulic pump, motor and closed loop flow meter, mounted to a stainless steel bracket. The hydraulic pump shall deliver 7 GPM, minimum. <u>Specify if different.</u></p>	
<p>8.44.6 The spreader shall have a LED work light mounted on the left side of the spinner chute, wired to the auxiliary switch panel in the cab, for use as a salter light. <u>Specify if different.</u></p>	
<p>8.44.7 The spreader shall be plumbed with a bulk fill and wash out kit, as well as a cross over line between the tanks. <u>Specify if different.</u></p>	
<p>8.45 <b>PAINT:</b> The unit shall have all seams caulked and be thoroughly cleaned and de-greased prior to painting. The cab shall be factory primed and painted with a two-component, base coat/clear coat, paint process. The truck chassis shall be factory primed and painted. The rest of the unit (with the exception of stainless steel or polished, aluminum surfaces) shall be painted with two, (2), medium coats of a two-component, self-etching primer such as Martin Senour #TE504 and #TER514 (or other City approved alternate). The self-etching primer shall be top coated with two, (2), coats of a two-component, epoxy primer-surfacer such as Martin Senour #TP570 and #TH572 (or other City approved alternate). The epoxy primer-sealer shall be applied with two, (2), full, cross-coats of a two-component, Acrylic Urethane Enamel, color topcoat such as Martin Senour MSU 3.5 Acrylic Urethane Enamel (or other City approved alternate). The unit color shall be the same as the factory color. All non-factory paint shall be City approved, in advance, of the actual painting, and be applied at the manufacturer's recommended rate and paint thickness. FOR VERIFICATION, ALL NON-FACTORY EMPTY PAINT CANS SHALL BE SAVED AND PROVIDED TO THE CITY PRIOR TO THE DATE OF DELIVERY. <b>Only non-stainless steel surfaces shall be painted.</b> <u>Specify if different.</u></p>	
<p>8.45.1 The chassis cab color shall be a factory applied, yellow, base coat (Wheatland Yellow-Dupont Paint #43536, School Bus Yellow-Ford Paint Code #84S53, or other City approved alternate) with a clear coat. <u>Specify paint color and paint code used.</u></p>	

8.45.2 The truck chassis shall be factory primed and painted black. <u>Specify if different.</u>	
8.45.3 Specify the brand name and paint # of the two-component, self-etching primer (Martin Senour #TE504 and #TER514 or other City approved alternate).	
8.45.4 Specify the brand name and paint # of the two-component, epoxy primer-surfacer (Martin Senour #TP570 and #TP572 or other City approved alternate).	
8.45.5 Specify the brand name and paint # of the two-component, Acrylic Urethane Enamel topcoat (Martin Senour MSU 3.5 or other City approved alternate).	
8.45.6 The surfaces primed and top-coated, by the body up-fitter, shall be warranted against rust-through, peeling, cracking, blistering or general failure of the top coat to adhere to the surface, for a minimum, of five, (5) years. <u>Specify any exceptions.</u>	
8.45.7 The stainless steel, dump body and spreaders shall not be top-coated with primer or paint. <u>Specify if different.</u>	
8.46 <b>MISCELLANEOUS:</b> The unit shall have a five, (5), pound, ABC rechargeable, fire extinguisher with a one piece, friction fit bracket, Part # 5012Z (available from Belle City Extinguisher or other City approved alternate), installed at a location in the vehicle, selected, in advance, by the City. <u>Specify if different.</u>	
8.46.1 The unit shall be supplied with a reflector flare kit. <u>Specify if different.</u>	
8.46.2 The unit shall be supplied with four, (4), complete sets of keys. <u>Specify if different.</u>	
8.46.3 The Vendor shall be responsible for registering and providing municipal license plates for each unit. <u>Specify if different.</u>	

<p>9. <b>DELIVERY:</b> Delivery shall be made to Kenosha Fleet Maintenance Division, 3725 65<sup>th</sup> St., Kenosha, Wisconsin, 53142, after all “pre-delivery” services have been performed.</p>	
<p>9.1 The Vendor shall be responsible for promptly correcting any equipment delivery deficiency, at no cost to the City, within ten, (10), calendar days after the City notifies the Vendor of such deficiency in writing. If the Vendor fails to correct or replace the defect within the period specified, the City, at its discretion, may notify the Vendor in writing that the Vendor may be debarred as a City bidder and/or be subject to contractual default if the corrections are not completed to the satisfaction of the City within ten, (10), calendar days of receipt of notice. If the Vendor fails to satisfy the delivery requirements within the period stipulated in the notice, the City may (a) place the Vendor in default of its contract and/or (b) procure the products or services from another Vendor and charge the Vendor for any additional costs that are incurred by the City either through a credit memorandum or through invoicing.</p>	
<p>10. <b>MANUALS/LITERATURE:</b> One, (1), Parts, Service/Technical, and Electrical Diagram Manual and two, (2), Operator Manuals for the chassis shall be provided, with the unit, at the time of delivery. A CD-ROM may be substituted for the Service/Technical Manual. A complete set, as stated above, shall be delivered with the unit. <u>Specify if different.</u></p>	
<p>10.1 Two, (2), Parts/Service/Operator Manuals for each component or selected Option installed and/or delivered with the unit, that is not supplied by the chassis manufacturer, shall be provided with the vehicle, at the time of delivery. <u>Specify if different.</u></p>	
<p>10.2 For the purpose of identifying components installed by the body up fitter, a specific build list with part numbers of all non-chassis components, shall be included with each unit, at the time of delivery. <u>Specify if different.</u></p>	
<p>12. <b>TRAINING INSTRUCTION:</b> Training shall be provided by factory trained personnel with regard to basic operation, maintenance, trouble shooting and tune-up procedures for the entire unit. This training shall be a minimum of two, (2), hours in duration, be conducted at a location of the City's choosing, and</p>	

include up to twenty, (20), City personnel. All such training and instruction shall be included in the proposal price. <u>Specify if different.</u>	
13. <b>BRAND NAMES:</b> For the purpose of this clause, references to brand names shall mean brand name and/or make or model number.	
13.1 <b>REFERENCE:</b> If articles other than those specified, for “the purpose of standardization”, have been identified in the proposal by a “brand name” and model number, such reference is intended to be descriptive, and not restrictive. It is for the sole purpose of indicating, to the prospective Vendors, a description of articles that will be satisfactory. Other items of equal quality may be considered. Samples and/or demonstrations may be required.	
14. <b>SUBSTITUTION:</b> Unless the Vendor clearly indicates in the proposal that the offering is a different article, the proposal shall be considered as an offering of the “brand name” article.	
15. <b>DEMONSTRATION:</b> Attendance at a pre-award conference may be necessary to verify compliance with this specification. Upon request, Vendors shall submit proposed equipment for demonstration before this contract is awarded.	
16. <b>SUBCONTRACTING:</b> The Vendor shall be responsible for the workmanship of all of their subcontractors. All subcontracted work shall conform with this specification and be in compliance with the manufacturer's recommendations and procedures.	
16.1 The Vendor shall also assume full warranty responsibility which shall include all work performed or parts furnished by their subcontractors.	

<b><u>ACCESSORY WIRE SPECIFICATIONS</u></b>	Proposers Specifications
1 <b><u>GENERAL</u></b> : It is the intent of this specification to describe the minimum requirements for wiring any accessories that are installed in or on the equipment being purchased by the City of Kenosha.	
2 <b><u>SAFETY/HEALTH</u></b> : All wiring shall comply with all applicable Federal Motor Vehicle Safety Standards, S.A.E. Codes, the Federal Occupational Safety and Health Act and be in accordance with the Wisconsin Administrative Code.	
3 <b><u>TECHNICAL REQUIREMENTS</u></b> :	
3.1 <b><u>TYPE</u></b> : Wiring for all add-on electrical accessories.	
3.2 <b><u>COMPONENTS</u></b> :	
3.2.1 <b><u>Wire</u></b> : The wire shall be of adequate gauge to carry the anticipated current loads.	
3.2.2 <b><u>Circuit Breakers</u></b> : All add-on accessories shall be tapped into the equipment's main circuit breaker panel.	
3.2.3 <b><u>Terminals</u></b> : Screw type.	
3.2.4 <b><u>Connections-Splices</u></b> : All connections and splices shall be made using the correct size nylon or PVC insulated butt connector, properly assembled and crimped. Scotchlock, or similar self stripping quick splice type connectors are not acceptable.	
3.2.5 <b><u>Insulation</u></b> : All connections and splices shall be protected with heat shrinkable tubing, such as irradiated polyolefin, or adhesive sealant lined tubing. The tubing shall be properly installed, using the correct tooling; i.e. - a heat gun. <b>The use of open flame type heat is not acceptable.</b>	
3.2.5.1 <b>Note</b> : The use of heat seal type butt connectors	

<p>such as Velvac Splice 'N Seal, (or city approved alternate), can be used to satisfy requirements 4 and 5 above. In addition, all exterior connections shall be protected with 3M Scotchkote Electrical Coating, (or city approved alternate).</p>	
<p>3.2.6 <b>Exposed Wiring:</b> All exposed wiring shall be installed into the correct size wiring loom, which shall extend the full length of the wiring to within (6") six inches of its destination. The loom shall be of the type that will fully enclose the wiring. Spiral wrap-around and full length slit convoluted type looms are not acceptable. In addition, the loom shall be sealed at each end and be anchored firmly at least every (24") twenty-four inches using nylon cable ties or cable clamps.</p>	
<p>3.2.7 <b>Grommets:</b> All holes drilled or cut for wiring, cables, looms, controls, etc., shall be fitted with the correct size grommet, or type of boot to fully protect the accessory wiring. All unused holes or openings shall be sealed in an approved manner.</p>	
<p>3.2.8 <b>Circuit Identification:</b> All add-on circuits shall be labeled, and a simple wiring diagram provided.</p>	
<p>4 <b>BRAND NAMES:</b> For the purpose of this clause, references to brand names shall mean brand name and/or make or model number.</p>	
<p>5 <b>REFERENCES:</b> If articles have been identified in the specification by a brand name (or City approved alternate) description, such reference is intended to be descriptive, but not restrictive and is for the sole purpose of indicating to prospective vendors a description of articles that will be satisfactory.</p>	
<p>6 <b>DESCRIPTIVE LITERATURE:</b> Vendors offering a different article shall submit descriptive literature to enable a determination as to the quality and characteristics of the item being offered.</p>	

<b>OPTION NUMBER</b>	<b>OPTION</b>
Option #1	Five Year Extended Power Train Warranty
Option #2	350 HP Engine Upgrade
Option #3	Engine Diagnostic Software
Option #4	Drive Axle Disc Brakes
Option #5	Rollrite Tarp System Installed
Option #6	Wausau MF5.4 Snow Plow
Option #7	V-Box Spreader

**CITY OF KENOSHA  
PUBLIC WORKS DEPARTMENT - STREET DIVISION**

**SIX (6) - TANDEM-AXLE  
DUMP TRUCKS**

**PROPOSAL NOTICE #12-19**

**PROPOSAL**

City of Kenosha  
Municipal Office Building  
625 52nd Street, Room 208  
Kenosha, WI. 53140

Purchasing,

We hereby propose to provide and deliver F.O.B. Destination, to City of Kenosha, Fleet Maintenance Division Garage, 3725 65th Street, Kenosha, WI. 53142, the equipment specified in accordance with the City of Kenosha specifications at the following firm prices:

2020 Make/Model: \_\_\_\_\_

Base Price : \$ \_\_\_\_\_ x 6 Units = \$ \_\_\_\_\_

Price Break based on multiple units purchased up to 6 units \$ \_\_\_\_\_

**OR**

2021 Make/Model: \_\_\_\_\_

Base Price: \$ \_\_\_\_\_ x 6 Units = \$ \_\_\_\_\_

Price Break based on multiple units purchased up to 6 units \$ \_\_\_\_\_

Option #1: Extended Five (5) Year Full Extended Warranty:

\$ \_\_\_\_\_ EA

**(2.5 of specifications, Page 3)**

Option #2: 350 H.P. Engine:

\$ \_\_\_\_\_ EA

**(8.4.1 of specifications, Page 6)**

Option #3: Diagnostic Software:

\$ \_\_\_\_\_ EA

**(8.4.3 of specifications, Page 6)**

Conveyor Chain:

Option #4: Air Disc Brakes / Drive Axle:

\$ \_\_\_\_\_ EA  
**(8.7.7 of specifications, Page 8)**

Option #5: Electric Tarpaulin:

\$ \_\_\_\_\_ EA  
**(8.38 of specifications, Page 25)**

Option #6: Front Plow:

\$ \_\_\_\_\_ EA  
**(8.41 of specifications, Page 27)**

Option #7: V-Box Spreader :

\$ \_\_\_\_\_ EA  
**(8.44 of specifications, Page 31)**

**CITY OF KENOSHA  
PUBLIC WORKS DEPARTMENT – STREET DIVISION  
MINIMUM SPECIFICATIONS  
SEVEN (7) – SINGLE AXLE DUMP TRUCK**

**DETAILED SPECIFICATIONS**

<b>Minimum Specifications</b>	<b>Proposers Specifications</b>
<p>1. <b>GENERAL:</b> It is the intent of this specification to describe the minimum requirements for seven, (7), single axle, dump truck to be purchased by the City of Kenosha, for use in the Department of Public Works – Street Division. All parts, items, or features not specially mentioned, which are necessary or which are regularly furnished in order to provide a complete unit, shall be furnished and delivered by the successful Vendor at the proposed price and shall conform in strength, quality of material and workmanship to that usually provided by standard engineering practice.</p>	
<p>2. <b>MANUFACTURER'S WARRANTY:</b> The City of Kenosha is obligated to purchase equipment which will give service over a long life. During the warranty period, the Vendor shall replace and install, without charge, any defective parts or any parts not suitable for the service intended. All warranty work shall be picked up by the Vendor within seventy-two, (72), hours of notification by the City, and delivered within seventy-two, (72), hours after completion of repairs. The warranty period shall begin when the vehicle is placed into service by the City.</p>	
<p>2.1 The Vendor shall be responsible for all “transportation” charges during the full warranty period for any equipment that requires warranty repair and/or replacement. The term “transportation” shall mean the physical driving of the unit by the Vendor but not to include towing or “trailer” of the unit. This includes picking up the unit from a designated City facility; delivery to an authorized repair facility; and return of the unit to a designated City facility.</p>	
<p>2.2 The Vendor shall supply the City with written authorization for any warranty work, performed by City personnel, which has been verbally agreed upon. The written authorization shall include both the labor and parts reimbursement agreement which shall either be faxed, electronically mailed or sent by First Class US Mail. The City will</p>	

invoice the Vendor for all warranty work performed by City personnel.	
2.3 The Vendor shall warrant the complete unit, excluding attachments but including the chassis, body, electrical and electronic components, hoist, hydraulic system, front plow, wing plow, salter system, dealer installed accessories and related components from defective parts and workmanship for a minimum of two, (2), years from the date the equipment is placed into service.	
2.4 A complete detailed copy of the basic warranty and extended warranty policy, outlining the terms and conditions, shall be included with the proposal. The warranty terms shall be clearly stated and include all inclusions and exclusions along with expiration dates.	
2.5 <b>OPTION #1:</b> A detailed copy of an additional five, (5), year Manufacturer's Extended Powertrain Warranty (five, (5), years total coverage), along with the coverage and cost to fleet customers, shall be included in the proposal. The Vendor shall provide specific details and costs of the Extended Manufacturer's Powertrain Warranty Options, which shall include, but is not limited to, all internal and exxternal engine manufacturer's components, driveline/axles/ differential, engine exhaust emissions systems and electronic controls and sensors for all components. For the purpose of providing a cost for the extended warranty, the annual average mileage of operation is 10,000 miles. <u>Specify cost of Manufacturer's Extended Powertrain Warranty.</u>	
3. <b>SERVICE FACILITIES:</b> In order to insure that the City will be able to maintain and repair the equipment purchased, the Vendor shall operate a service facility capable of performing most repairs associated with the proposed equipment. This City approved facility shall be located within fifty, (50), miles of the City of Kenosha, Fleet Division and be stocked with common replacement and high wear parts. The Vendor shall provide the name, address and telephone number of the service facility, and the person to contact for service, with their warranty statement.	
4. <b>AWARD AUTHORITY:</b> The City shall be the sole judge of the quality, construction and suitability of the equipment offered	

in its determination of the successful Vendor.	
5. <b>DESCRIPTION OF EQUIPMENT:</b> A proposal shall be considered only if the Vendor clearly shows, without a doubt, that they are proposing regularly manufactured equipment, tried, proven, and in current use. A list of three, (3), or more users, with like equipment, shall be furnished upon the request of the City, after the proposal opening. <b>PRINTED LITERATURE DESCRIBING THE PARTICULAR EQUIPMENT INCLUDING ACCESSORIES (make, model and manufacturer's rating) SHALL BE INCLUDED WITH THE PROPOSAL.</b>	
5.1 The Vendor shall propose the latest model of equipment manufactured, by the concern which they represent. Equipment shall be new and unused. <b>Factory rebuilt equipment or demo units will not be considered.</b>	
6. <b>SAFETY EQUIPMENT:</b> The vehicle shall comply with all applicable Federal Motor Vehicle Safety Standards.	
7. <b>SERVICE REQUIREMENTS:</b> The equipment will be used by the City of Kenosha Street Division, for road construction, maintenance and snow removal.	
8. <b>TECHNICAL REQUIREMENTS: All specified features and accessories, listed below, shall be incorporated into the single axle dump truck.</b>	
8.1 <b>TYPE:</b> The unit shall be a single axle, severe service, dump truck (International HV607, Peterbilt 348, or City approved alternate) with a thirty eight inch, (38"), minimum, setback front axle and be equipped to operate a material spreader with a pre-wetting system, snow plow and snow plow wing. <u>Specify truck manufacturer, model, and year of manufacture.</u>	
8.2 <b>GVWR:</b> The unit shall have a minimum, certified GVWR of 46,000 pounds. A GVWR sticker shall be permanently affixed to the vehicle. <u>Specify GVWR.</u>	
8.3 <b>FRAME:</b> The chassis frame shall be designed for severe duty use in municipal applications, such as snow plowing, salt/liquid applications, heavy hauling, etc., and have a	

minimum, 120,000 PSI rating. <u>Specify frame rating.</u>	
8.3.1 The frame shall have a minimum, Resist Bend Moment (RBM), of 2,568,400 inch pounds. <u>Specify RBM.</u>	
8.3.2 The frame shall have a minimum, Section Modulus, of 21.4 cubic inches. <u>Specify Section Modulus.</u>	
8.3.3 The unit's wheelbase shall be suitable for a frame mounted, vertical exhaust and 85 inch, cab to axle (CA) length (or City approved alternate). <u>Specify CA and wheelbase.</u>	
8.3.4 The unit shall have either 20 inch or 22.4 inch, integral frame extensions, for the installation of a snow plow hitch and snow wing post frame. <b>Bolt or weld-on extensions are not acceptable.</b> <u>Specify if different.</u>	
8.3.5 The unit shall have a single, severe duty, frame rail. <u>Specify if different.</u>	
8.3.6 The chassis frame, at the front of the unit, shall be heavy enough to support the wing and plow in the stowed position, with minimal lean to the wing side. <u>Specify if different.</u>	
8.3.7 The clearance from the bottom of the wing mast, to level ground, shall be no less than 8 inches, with the wing and plow fully raised (see item #8.40.7 – Wing Plow). <u>Specify if different.</u>	
8.3.8 The unit shall have a severe service, 30 degree, swept back, front bumper to be of a size and strength to allow for the mounting of a plow. <u>Specify if different.</u>	
8.3.9 The frame shall have either Grade 8 bolt or Huck bolt design. <u>Specify type of fastener used.</u>	
8.4 <b>ENGINE:</b> The unit shall have a MaxxForce 9, Cummins ISL, or PACCAR PX9, 330 hp, diesel engine (or City approved alternate). The diesel engine shall have a minimum, 1,000 lb-ft torque @ 1,400 RPM and 330 hp @ 2,200 RPM. <u>Specify engine make, model, displacement, torque and hp @ 2,200 RPM.</u>	

8.4.1 <b>OPTION #2:</b> If Option #2 is selected, the unit shall be supplied with an engine having, a minimum, 350 hp @ 2,200 RPM and 1,150 ft-lb. Torque @ 1,400 RPM. <u>Specify make, model, displacement, hp and torque @ rated RPM and cost of Option #2.</u>	
8.4.2 The unit shall have an enabled, electronic, automatic engine shut down system. The engine shutdown system shall include low engine oil pressure, high coolant temperature, low coolant level, and automatic override. <u>Specify if different.</u>	
8.4.3 <b>OPTION #3:</b> If Option #3 is selected, the unit shall be delivered with the most current version of the engine manufacturer's diagnostic, maintenance and engine repair software. The CD-ROM software shall be capable of performing all diagnostic checks and parameter adjustments authorized by the engine manufacturer. The software shall be capable of running on a notebook computer with a Windows operating system. The necessary data link cables to interface with the engine control computer shall be included with the software. <u>Specify cost of engine software, Option #3.</u>	
8.4.4 The Vendor shall provide training on the use of the engine diagnostic software for all City of Kenosha Fleet Maintenance mechanics. The training shall be "hands on" and will take place at the City of Kenosha Fleet Maintenance Division, at an agreed upon date/time. <u>Specify if different.</u>	
8.4.5 The engine shall have an installed 110 volt, 1100 watt, minimum, engine block heater, with a receptacle type plug socket and cover, mounted in a location approved, in advance, by the City. <u>Specify mounting location.</u>	
8.4.6 The unit shall have an under hood air intake (snow valve). <u>Specify if different.</u>	
8.4.7 The engine shall have a heavy duty, dry type, air cleaner with safety element and restriction indicator. <u>Specify if different.</u>	
8.4.8 The engine oil pan shall be constructed of a non-corrosive material or be powder coated to prevent corrosion.	

Specify corrosion protection method.	
8.4.9 The unit shall have an exhaust system with a horizontal muffler, vertical tail pipe with guard. The tail pipe shall be turned out and be mounted on the right side of the cab. <u>Specify if different.</u>	
8.5 <b>COOLING SYSTEM:</b> The unit shall have a heavy duty, cross flow radiator, filled with extended life antifreeze and be protected to, a minimum of, -34 degrees Fahrenheit. <u>Specify if different.</u>	
8.5.1 The engine cooling fan drive shall be of a direct drive, Horton (or City approved alternate) air actuated, two, (2), speed model. <u>Specify if different.</u>	
8.5.2 The radiator shall be mounted above the frame rails. <u>Specify if different.</u>	
8.6 <b>TRANSMISSION:</b> The unit shall have an electronically controlled, automatic transmission with six, (6), forward speeds and one, (1), reverse speed (Allison 3500 RDS or other City approved alternate). The transmission shall have a temperature gauge mounted in the cab. The transmission gear selector shall be of a push button type, mounted in or on the dashboard panel. The transmission shall be capable of manual range selection or automatic shifting. The transmission shift pattern shall be illuminated for night use. The transmission shall be factory filled with synthetic fluid approved by Allison. The transmission filler tube/dipstick shall be clearly labeled with the type of fluid used. <u>Specify transmission make and model, and type of fluid used.</u>	
8.6.1 The transmission shall be able to withstand the severe service of snow plowing and low ambient temperatures. <u>Specify if different.</u>	
8.6.2 The transmission shall have provisions for a direct mount/constant mesh PTO and hydraulic pump. Access to the both PTO openings shall be unobstructed. <u>Specify if different.</u>	
8.7 <b>BRAKES:</b> The unit shall have full air, anti-lock brakes,	

with automatic slack adjusters. <u>Specify if different.</u>	
8.7.1 All air lines shall be colored coded and use quick connectors.	
8.7.2 The front brakes shall be air disc. <u>Specify if different.</u>	
8.7.3 The rear brakes shall be 16.5" x 7" with thirty, (30), square inch chambers and dust shields. <u>Specify size of rear brakes and rear brake chambers.</u>	
8.7.4 The unit shall have a minimum, 16.5 CFM, water cooled, air compressor. <u>Specify CFM.</u>	
8.7.5 The unit shall have a Bendix AD-IS air dryer (or City approved alternate). The air dryer shall be installed before the air tanks to minimize water accumulation. <u>Specify if different.</u>	
8.7.7 <b>OPTION #4:</b> If Option #4 is selected, the unit shall have full air, disc brakes, on the drive axle. <u>Specify make, model, and cost of Option #4.</u>	
8.8 <b>FRONT AXLE:</b> The front axle shall have not less than a 20,000 pound, load rating. <u>Specify front axle load rating and manufacturer.</u>	
8.8.1 The front axle shall have "wet hub oil seal" wheel ends. The hubs shall have inspection caps and be factory filled, with a synthetic lubricant. <u>Specify if different.</u>	
8.8.2 The front axle shall have "hub piloted" steel wheel ends. <u>Specify if different.</u>	
8.9 <b>FRONT SUSPENSION:</b> The front axle, suspension springs shall be a multi-stage suspension type, with heavy duty, dual acting, shock absorbers. <u>Specify front axle suspension and load rating.</u>	
8.9.1 The front suspension springs shall have heavy duty bushings and pins. <u>Specify if bushings are greaseable or non-</u>	

greaseable.	
8.9.2 The front suspension shall have an air bag assist system, on the right side (snow wing location), to compensate for truck lean when the wing is installed. The air bag shall have an in cab control. The air bag control shall include an inflation, indicator gauge located in the cab. <u>Specify if different.</u>	
8.10 <b>REAR AXLE:</b> The rear axle shall not have less than a 26,000 pound, load rating. <u>Specify axle load rating, make, and model of axle and differential.</u>	
8.10.1 The rear axle differential shall be factory filled with a high quality, synthetic gear lubricant and have the lubricant type identified on the axle housings. <u>Specify if different.</u>	
8.10.2 The rear axle shall have a driver controlled, differential lock on both drive wheels with lighted dash mounted controls, in the cab. <u>Specify if different.</u>	
8.10.3 The rear axle shall have “hub piloted” steel wheel ends. <u>Specify if different.</u>	
8.10.4 The rear axle shall have a gear ratio to provide a minimum, top speed of 70 MPH regardless of the engine provided, while maintaining good all around driveability. <u>Specify gear ratio and top vehicle speed.</u>	
8.11 <b>AIR RIDE REAR SUSPENSION:</b> The rear suspension shall be air ride, with a minimum 26,000 pound, load rating and have maximum ground clearance for off road applications. <u>Specify rear suspension load rating and manufacturer.</u>	
8.11.1 The air ride, rear suspension shall be equipped with heavy duty, double acting, shock absorbers. <u>Specify if different.</u>	
8.11.2 The rear suspension, air ride system shall be controlled from the cab, by an air dump switch. The air bag suspension shall have an automatic system to prevent the air	

bags from “hyper extending” when the body load is dropped quickly, such as with loose, dry gravel. <u>Specify if different.</u>	
8.12 <b>STEERING</b> : The unit shall have a tilt, telescopic, steering column and heavy duty, integral, power steering with dual steering boxes. Slave assisted steering is not acceptable. The turning diameter, wall to wall, shall be twenty-eight feet ten inches, (28'10”),maximum. <u>Specify type of power steering system and wall to wall turning diameter.</u>	
8.12.1 The hydraulic pump for the power steering system shall be of the direct drive type, with a remote mounted reservoir, fluid level dipstick, and a replaceable filter. <u>Specify if different.</u>	
8.13 <b>FUEL TANK</b> : The unit shall have an aluminum diesel fuel tank with a minimum, fifty, (50), U.S. gallon capacity, mounted on the left side of the vehicle. The fuel tank straps shall be either aluminum or stainless steel. All cab entry steps shall be aluminum. The fuel tank shall be mounted to provide adequate clearance for use in off highway conditions. <u>Specify if different.</u>	
8.13.1 The unit shall have a DEF tank with a minimum, (5), five, U.S. Gallon capacity, mounted on the left side of the vehicle. The DEF tank shall be mounted to the rear of the fuel tank, <u>The DEF tank shall be clearly labeled to avoid contamination of fluids. Specify if different.</u>	
8.14 <b>WHEELS</b> : The unit shall have front and rear “hub piloted”, steel wheels. The wheel size shall be 22.5" x 9" on the front and 22.5" x 8.25" on the rear. <b>One spare wheel for the rear of the unit shall be provided with the unit at the time of delivery.</b>	
8.14.1 <u>Specify front wheel size.</u>	
8.14.2 <u>Specify rear wheel size.</u>	
8.14.3 The steer and drive axles shall have high visibility, wheel check indicators installed at all wheel ends and all wheel nuts. <u>Specify if different.</u>	

<p>8.15 <b><u>TIRES</u></b>: All tires on the unit shall be tubeless radials manufactured by Goodyear (or other City approved alternate). The front tires shall be Goodyear model G289 (315/80R22.5) and the rear tires shall be Goodyear model G177 (11R22.5) traction tread. The front tires shall be 20 ply and rear tires shall be 16 ply.</p>	
8.15.1 <u>Specify front tire make, model, and size.</u>	
8.15.2 <u>Specify front tire load range.</u>	
8.15.3 <u>Specify rear tire make, model, and size.</u>	
8.15.4 <u>Specify rear tire load range.</u>	
8.16 <b><u>FRONT END</u></b> : The unit shall have a full tilt, fiberglass, front end with a stationary grille and a full gravel guard, located behind the grill. <u>Specify if different.</u>	
8.17 <b><u>INSTRUMENTS</u></b> : The unit shall have the following gauges and warning indicators in the cab.	
8.17.1 Engine coolant temperature gauge.	
8.17.2 High temperature warning light and alarm.	
8.17.3 Engine oil pressure gauge.	
8.17.4 Low engine oil pressure warning light and alarm.	
8.17.5 Speedometer.	
8.17.6 Odometer.	

8.17.7 Electronic engine hour meter.	
8.17.8 High engine oil temperature alarm.	
8.17.9 Transmission oil temperature gauge with warning light.	
8.17.10 Dual air pressure gauge(s) with audible low air pressure alarm.	
8.17.11 Fuel gauge.	
8.17.12 Voltmeter.	
8.17.13 Tachometer.	
8.17.14 DEF gauge.	
8.17.15 Low hydraulic oil level light and alarm, supplied by the body Vendor.	
8.17.16 All gauges shall be lighted and positioned for good visibility from the driver's seat. <u>Specify if different.</u>	
8.18 <b>ELECTRICAL SYSTEM:</b> The unit shall have a twelve, (12), volt electrical system with a 160 amp, minimum, alternator. <u>Specify alternator size in amps.</u>	
8.18.1 The complete, chassis electrical system shall have a built in, self diagnosis provision. <u>Specify if different.</u>	
8.18.2 The unit shall have three, (3), batteries with approved hold downs, for a combined total of 1,950 CCA (minimum) @ 0 degrees Fahrenheit. <u>Specify number of batteries, mounting location and CCA @ 0 degrees Fahrenheit.</u>	

<p>8.18.3 The unit shall have auto reset circuit breakers, where applicable, located in one main panel. <u>Specify all electrical items protected by fuses.</u></p>	
<p>8.18.4 All vehicle lighting shall comply with Federal Motor Vehicle Safety Standard (FMVSS) 108. <u>Specify if different.</u></p>	
<p>8.18.5 All wiring harnesses shall be numbered with quick disconnect connectors, and shall be accessible for maintenance. <u>Specify if different.</u></p>	
<p>8.18.6 A Safe-T-Alert 2000 Series-Model STA20502-G (or City approved alternate) back-up alarm shall be installed at the rear of the chassis. <u>Specify if different.</u></p>	
<p>8.18.7 The unit shall have provisions for the body up-fitter to perform the necessary electrical connections to the chassis wiring system. <u>Specify if different.</u></p>	
<p>8.18.8 The unit shall have a battery disconnect switch with a six, (6), minute delay timer (Flaming River #FR1052 and #FR1055 or other City approved alternate) installed per manufacturer's instructions. <u>Specify if different.</u></p>	
<p>8.18.9 The unit shall be equipped with halogen, high and low beam, sealed headlights; front and rear directional lights with hazard warning switch; dual tail and stop lights; cab clearance lights; backup lights; and a cab interior light with switch. <u>Specify if different.</u></p>	
<p>8.18.10 The unit shall have a "body up" light and audible alarm, supplied by the body manufacturer, installed in the cab, in view of the operator. <u>Specify if different.</u></p>	
<p>8.18.11 All electrical system items shall be properly protected and all add-on accessories shall comply with the City's "ACCESSORY WIRING SPECIFICATIONS", copy attached. <u>Specify if different.</u></p>	
<p>8.18.12 All chassis lighting shall be manufacturer installed,</p>	

LED lighting, with the exception of the headlights. <u>Specify if different.</u>	
8.18.13 The unit shall be pre-wired from the factory for a two way, mobile radio. The wiring shall be fuse protected. <u>Specify if different.</u>	
8.19 <b>LIGHTING-WARNING:</b> One, (1), SoundOff Signal 6" Oval Gen 2 LED strobe-Model EOVREBZA with rubber grommet (or other City approved alternate), shall be mounted on the left front and one, (1), on the right front of the dump body, in a cutout in the front face of the cab protector shield. The strobe flash pattern shall be an alternating pattern. The final installed position of the strobes shall be determined, in advance, by the City. <u>Specify if different.</u>	
8.19.1 One, (1), SoundOff Signal 6" Oval Gen 2 LED strobe-Model EOVREBZA with rubber grommet (or other City approved alternate), shall be mounted on the left rear and one, (1), on the right rear of the dump body, in a cutout near the top of the corner body post. The strobe flash pattern shall be an alternating pattern. <u>Specify if different.</u>	
8.20 <b>LIGHTING-PLOW/WING:</b> Two, (2), Truck-Lite Model 80800 (or other City approved alternate) Snow Plow lights shall be mounted, on the tilt hood fenders, with stainless steel brackets. The base of the plow lights shall be level with the center line of the hood assembly and not interfere with the full tilting of the hood. The directional feature of the plow lights must function. The plow lights shall function as forward lighting when the plow is installed and shall be aimed as needed. The plow light switch shall be located on the Patrol Commander console. <b>NOTE:</b> If the mounting of the plow lights on the fenders with brackets is not possible due to the hood design, the lights shall be mounted on the hood, on each side of the grille. All mounting brackets and hardware shall be stainless steel. The final plow light mounting location shall be approved, in advance, by the City. <u>Specify if different.</u>	
8.20.1 One, (1), SoundOff Signal, Gen 3 LED work light, Model EWLA1000DBDF0W (or other City approved alternate) shall be mounted on the right side mirror bracket, as a wing plow light. Final mounting location shall be approved, in advance, by	

<p>the City. <b>NOTE:</b> The wing plow light and the wing tip strobe light shall be controlled with a single switch and be independent from all other lighting. <u>Specify if different.</u></p>	
<p>8.20.2 One, (1), Whelen-Model WFLOW1A Wing Plow Tip strobe (or other City approved alternate) shall be installed on the snow plow wing tip, per Whelen installation procedures. This strobe model is for use when the wing is in operation. <b>NOTE:</b> The wing tip strobe light and wing plow light shall be controlled with a single switch and be independent from all other lighting. <u>Specify if different.</u></p>	
<p>8.20.3 All auxiliary lighting shall be controlled by CLEARLY LABELED SWITCHES on the Patrol Commander console and be adequately rated for the current usage. <u>Specify if different.</u></p>	
<p>8.21 <b>LIGHTING-CHASSIS/BODY:</b> SoundOff Signal O6 Premium Oval LED Stop/Tail/Turn-Model ECV062STT (or other City approved alternate) rear lighting shall be installed at the rear of the dump body, on the upright body corner posts. <u>Specify if different.</u></p>	
<p>8.21.1 An additional set of SoundOff Signal O6 Premium Oval LED Stop/Tail/Turn-Model ECV062STT with SoundOff Signal O6 Oval Backup/Reverse-Model ECV062B2W LED lights (or other City approved alternate) shall be installed on the bottom of the dump body corners, behind the rear tires, below the dump box tailgate, on the lower rail. Stainless steel shredder plates shall be installed above the recessed lights. The location shall be approved, in advance, by the City, prior to installation. <u>Specify if different.</u></p>	
<p>8.21.2 All body side marker / clearance lights shall be SoundOff Signal Premium LED 200 Series lights (or other City approved alternate). <u>Specify if different.</u></p>	
<p>8.21.3 All body lighting shall be rubber grommet mounted. No surface mount lighting shall be used unless approved, in advance, by the City. <u>Specify if different.</u></p>	
<p>8.21.4 All chassis lighting shall be manufacturer installed,</p>	

LED lighting, with exception of headlights. <u>Specify if different.</u>	
8.21.5 All electrical system items shall be properly protected and all add-on accessories shall comply with the City's "ACCESSORY WIRING SPECIFICATIONS", copy attached. <u>Specify if different.</u>	
8.21.6 Vendors may contact the following lighting sales representatives' regarding inquiries about the specified lights. SoundOff Signal – Tom Grubba, Regional Sales Manager-Cell: (616)889-7697; or Mike Greenburg, Sales-Cell: (708) 751-6302; Wholesale Direct (Whelen/Truck-Lite) Sales-Cell: (708) 751-6302.	
8.22 <b>CAB:</b> It is the intent, by the City of Kenosha, for these units to have a 20-year service life. If a steel cab is proposed, the successful Vendor shall provide complete Ziebart (or other City approved alternate) rustproofing. In addition to the underside of the cab, all interior panels and interior flooring shall be rustproofed. All interior panels, including the headliner, back panels, seats and floor covering, shall be removed to ensure full coverage of all sheet metal. <u>Specify cab material and rustproofing used.</u>	
8.22.1 The cab shall have a cab floor that is flat, to facilitate the installation of the Patrol Commander controls. <u>Specify if different.</u>	
8.22.2 The unit shall have a heavy duty, heater and defroster. <u>Specify if different.</u>	
8.22.3 The unit shall have factory installed, air conditioning, with a serviceable, cabin air filter. <u>Specify if different.</u>	
8.22.4 The unit shall have tinted, safety glass throughout the cab. <u>Specify if different.</u>	
8.22.5 The unit shall have seat belts, with shoulder straps. <u>Specify if different.</u>	

8.22.6 The unit shall have a cigar lighter, ashtray, and dual sun visors. <u>Specify if different.</u>	
8.22.7 The unit shall have a factory installed, AM/FM, Bluetooth compatible, radio with clock. <u>Specify if different.</u>	
8.22.8 The unit shall have painted, aerodynamic, motorized, heated, breakaway mirrors with heated, convex mirrors (or City approved alternate). <u>Specify if different.</u>	
8.22.9 The unit shall have electric, intermittent, windshield wipers with washers. <u>Specify if different.</u>	
8.22.10 The unit shall have a driver's side, air suspension bucket seat, with a right side, fold-able arm rest. <u>Specify make and model of driver's seat.</u>	
8.22.11 The unit shall have a passenger's side, non-suspension bucket seat, with a left side, fold-able arm rest. <u>Specify make and model of passenger's seat.</u>	
8.22.12 The unit shall have an air horn, mounted on the frame or under the hood. The unit shall also have heavy duty, dual, electric horns. <u>Specify if different.</u>	
8.22.13 The unit shall have an air ride cab (or other City approved alternate). <u>Specify if different.</u>	
<b>8.23 HYDRAULIC CONTROL SYSTEM SPECIFICATIONS:</b> The hydraulic system shall be capable of centrally operating all the hydraulic functions of the snow plow, snow plow wing, material spreading equipment, liquid application systems, dump body and any other on-vehicle systems requiring hydraulic control. <u>Specify if different.</u>	
<b>8.24 HYDRAULIC PUMP/CONSTANT MESH PTO:</b> The unit shall have a Force America TXV92 axial piston pressure and flow compensated, load sensing, hydraulic pump. The pump shall deliver 23.7 GPM @ 1000 RPM engine speed, with 4,800 PSI continuous pressure. A two inch, (2"), suction line and a	

<p>half-inch, (1/2”), control drain line shall be plumbed to the reservoir. The pump outlet shall have a one inch, (1”), high pressure, steel, ball valve. A constant mesh PTO, OMFB Series (or other City approved alternate), shall be mounted to the Allison transmission to drive the pump. <u>Specify if different.</u></p>	
<p><b>8.25 HIGH PRESSURE HYDRAULIC FILTER:</b> The unit shall have a high-pressure filter plumbed between the hydraulic pump and the control valve assembly. The filter shall be a twenty-five, (25), micron absolute, and be rated for 6,000 PSI. The hydraulic filter shall be equipped with visual and electrical by-pass indicators and be a model HP17125VG30EPUG5S2AE7050P (or other City approved alternate). The electrical indicator shall be wired to a warning light in the heads up display. One, (1), spare high pressure, hydraulic filter shall be supplied, with each unit, at the time of delivery. <u>Specify if different.</u></p>	
<p><b>8.26 HYDRAULIC VALVE CONTROL CENTER:</b> The hydraulic valve control center shall be a Force America Partol Commander Ultra 6100 seat mount (or other City approved alternate), modular, nine, (9), axis, multi-stick, fully proportional control to operate all hydraulic functions. The controller shall be of a modular design. The multi-stick, communication electronics shall have the capability to control nine, (9), proportional outputs simultaneously. The control shall have a three, (3), stick configuration. The joy stick control center shall be attached to the right side, of the driver's air seat, and shall remain in an operating position regardless of seat position, adjustment or travel. The multi-stick control shall have a momentary push button at the top of the hoist stick, to provide hoist interlock. The multi-stick control shall have a solid state, red LED labeled, “Hoist”, which shall illuminate when the driver disengages the hoist interlock. The “Hoist” LED shall remain illuminated while the hoist is in operation. The “Hoist” LED shall be integrated into the communication control circuit and shall time out, after a period of hoist inactivity. The multi-stick communication hardware/software shall include four,(4), integral, float options. The integral float programming shall have a four, (4), axis, functional, float less design and offer up to a five, (5), million cycle life. For ease of service, the multi-stick control shall have the following easily accessible at the valve drive module: nine, (9), sets of MIN/MAX adjustments; output status indicator LED's for each output; and nine,(9), output error status indicators, with flashing error codes. The multi-stick control shall have solid state, overload protection to insure longevity. The unit shall have a separate cable assembly, with plug ends, that connect the</p>	

<p>controller to the valve connection and the main power connection. The center shall have color coded wiring throughout. A heavy duty, pre-wired, valve harness shall be included for the cylinder function, valve assembly and the auger reverse, spinner, dual valve assembly. <u>Specify if different.</u></p>	
<p><b>8.27 SPREADER CONTROLS:</b> The unit shall have a Force America Ultra SSC6100 Gen 5 Can-Bus (or other City approved alternate), electronic spreader control designed for precise, closed loop control of granular, pre-wet liquid and anti-icing applications and shall have the ability to control direct application of liquid when the optional equipment is selected. The electronic spreader control shall have a field replaceable, battery back up, that protects memory functions. The data memory shall be 512K RAM, minimum. For data logging, the unit shall retain four thousand, (4,000), events, minimum. The electronic spreader firmware shall be upgradeable, by downloading files from the manufacturer's web site, at no charge to the City, for the life of the control unit. The unit shall be protected from both, reverse polarity and over voltage. The spreader "heads up" display shall be mounted on the truck dash, within easy view of the driver. The display shall have four, (4), warning light options for: low oil level, dump body up, hydraulic oil temperature and hydraulic filter bypass. The spreader control shall be capable of downloading data to a printer or PC, interface with optional road temperature sensors, liquid application systems and AVL equipment. <u>Specify if different.</u></p>	
<p><b>8.28 SWITCH CONSOLE:</b> The switch console shall be a Force America DK8000 (or other City approved alternate) containing eight, (8), 15 amp switches for controlling eight, (8), separate auxiliary functions. Each switch shall be protected by individual circuit breakers. The switch console shall have changeable nomenclatures and be fully backlit with solid state LED's. The console shall have both internal and external, color coded wiring. The external power harness shall have an eight, (8), gauge, minimum, power wire. The remaining wiring, in the harness, shall be fourteen, (14), gauge wire, minimum. The console shall be powered through a relay, that is powered by the ignition circuit, to prevent battery drainage. <u>Specify if different.</u></p>	
<p><b>8.29 HYDRAULIC VALVE:</b> The hydraulic valve segments shall be a Force America, Add-A-Fold (or other City approved alternate) model, of modular design. Each hydraulic function shall have an individual manifold, stacked together, to form the</p>	

manifold base. The manifold base shall consist of an inlet section with SAE #16 inlet porting, SAE #20 outlet porting, and SAE #4 load sense porting. There shall be a main system relief, in the inlet section, to protect the system from high pressure, in the case of a pump compensator failure. The dump body manifold shall be stacked next to the inlet section and be capable of 40 GPM, with SAE #12 porting. The hydraulic control valves shall be pulse width modulated and be proportionally controlled. Each hydraulic valve segment shall be individually mounted to the manifold base assembly, and be serviceable, without removing any hydraulic hoses or any other hydraulic valve segments. Each hydraulic valve segment shall have individual, pressure compensation to achieve independent, simultaneous operations. All segments shall have heavy duty, continuous duty coils and connections with Din connectors. All coils shall operate at 12 VDC and require a maximum, 1,400 milli-amps. Each segment shall be equipped with a manual override, except for the auger and spinner sections. The dump body segment shall be rated to 40 GPM, with all other segments rated to 20 GPM. If a double acting hoist is utilized, the dump body segment shall be equipped with a down side relief, to protect the body down function. The relief valve shall be set to the hoist manufacturer's specifications. The valve segments are to be arranged as follows: Hoist, 4-way with 500 PSI down side work port relief valve with pressure gauge; Plow lift, zero leak 3-way; Plow angle, 4-way; Wing heel/toe, 4-way with external sequencing valves; Auger, 4-way; Spinner, 2-way; Pre-wet, 2-way; Anti-ice, 2-way. Specify if different.

**8.30 RESERVOIR/VALVE ENCLOSURE:** The reservoir/valve enclosure shall be a Force America VT35 (or other City approved alternate). The hydraulic reservoir shall be constructed of ten, (10), gauge, stainless steel, minimum, and have a thirty-five, (35), U.S. gallon capacity, minimum. All mounting hardware shall be supplied by the reservoir supplier. The valve enclosure shall utilize gasket-less technology. The enclosure lid shall be removable without the use of tools. The reservoir supplier shall provide all valve fittings and the pump return line, from the valve to the filter assembly. The directional control valve shall be accessible from all sides, without the use of tools. The reservoir suction port shall have a two inch, (2"), full flow, brass, ball valve. Specify if different.

**8.31 HYDRAULIC OIL FILTER:** The hydraulic oil filter shall be a model TEF3131016VG16SP-UG60E115 (or other City approved alternate), with visual and electrical bypass indicators.

<p>The hydraulic oil filter shall be mounted at the reservoir. <u>Specify if different.</u></p>	
<p>8.32 <b><u>SNOW WING LOCK:</u></b> The snow wing, heel cylinder shall be equipped with an anti-drift, wing lock device. The wing lock shall be supplied, by the wing cylinder supplier. <u>Specify if different.</u></p>	
<p>8.33 <b><u>SNOW WING DECEL:</u></b> The snow wing, heel cylinder shall have a decelerating, hydraulic cylinder, to slow the snow wing when raising, to prevent possible cab damage. The decelerating cylinder shall be a model J9332-BA-WC (or other City approved alternate). <u>Specify if different.</u></p>	
<p>8.34 <b><u>SNOW WING SEQUENCING:</u></b> The snow wing shall be operated by one valve section. Two, (2), sequencing valves, one, (1), for the wing toe function and one, (1), for the wing heel function shall be plumbed into the wing hydraulic circuit. Lowering sequence: heel first, then toe. Raising sequence: Toe first, then heel. The valves shall be Sun Hydraulics SCCA, with aluminum bodies and contain an adjustable cartridge. The sequencing shall be accomplished by a single action, by the operator. <u>Specify if different.</u></p>	
<p>8.35 <b><u>HYDRAULIC LINES / PLUMBING:</u></b> The hydraulic suction line shall be two inch, (2”), minimum, and be secured with heavy duty, banding straps. All pressure hoses shall have swivel fittings on both ends, with a SAE 100-R2 rating, minimum. All hydraulic lines shall be routed to minimize interference with body and chassis equipment. Support brackets, grommets and band straps shall be used to protect hydraulic lines from damage. The maximum spacing between support clamps, on hydraulic lines, shall be twenty-four inches, (24”). <b>The use of non-hydraulic pipe fittings, is not acceptable.</b> <u>Specify if different.</u></p>	
<p>8.35.1 The body installer shall provide and install, all necessary components, fittings, hydraulic pressure and return hoses, required for a material spreader with pre-wetting and anti-icing capabilities to operate, with the use of the Force America electronic spreader controls, with the use of stainless steel lines to the front and rear of chassis. <u>Specify if different.</u></p>	

<p>8.35.2 The chassis hood shall be able to be tilted for maintenance and inspections, without removing or repositioning any plow or wing hydraulic connections. <u>Specify if different.</u></p>	
<p>8.35.3 The body installer and City of Kenosha shall discuss the mounting location of cab valve controls, switch console and front mounted snow plow/wing plow hydraulic couplers prior to installation. The vehicle will not be accepted if these components are installed without City authorization. <u>Specify if different.</u></p>	
<p>8.36 <b>STAINLESS STEEL DUMP BODY:</b> The chassis shall have a heavy duty, 304 stainless steel dump body, measuring ten feet, (10'), long by ninety-six inches, (96"), wide, installed. All stainless steel, on the dump body, shall be 304 stainless steel, unless otherwise specified. <u>Specify manufacturer, model, length and width of dump body.</u></p>	
<p>8.36.1 The dump body shall have a 4.8 cubic yard, minimum, struck capacity, without sideboards. <u>Specify struck capacity of dump body.</u></p>	
<p>8.36.2 The dump body shall have a 7.1 cubic yard, minimum, heaped capacity, when equipped with sideboards. <u>Specify heaped capacity.</u></p>	
<p>8.36.3 The dump body shall have twenty-six inch, (26"), high sidewalls, fabricated from seven, (7), gauge, 304 stainless steel, with 35,000 PSI yield and 85,000 PSI tensile strength. <u>Specify if different.</u></p>	
<p>8.36.4 The dump body shall have a weld-on dirt shedding, lower rub rail, fabricated from seven, (7), gauge minimum, hi-tensile stainless steel. <u>Specify if different.</u></p>	
<p>8.36.5 The dump body shall have a forty-eight inch, (48"), high, front head sheet, fabricated from seven, (7), gauge, 304 stainless steel, with a 35,000 PSI yield and 85,000 PSI tensile strength. <u>Specify if different.</u></p>	

8.36.7 The dump body shall have a cab shield, fabricated from 304 stainless steel. <u>Specify if different.</u>	
8.36.8 The rear posts of the dump body, shall be fabricated from 3/16" thick, 304 stainless steel, minimum. The rear of the dump body shall be thirty-six inches, (36"), high. <u>Specify if different.</u>	
8.36.9 The tailgate of the dump body, shall be fabricated from seven, (7), gauge, 304 stainless steel, minimum. The tailgate shall have a nine, (9), panel design, with a six inch, (6"), face on vertical bracing, minimum. All horizontal bracing shall be dirt shedding. <u>Specify if different.</u>	
8.36.1 The tailgate release, lock linkage and hinge pins on the dump body shall be 304 stainless steel, with greaseable bushings on both sides, at each linkage point, for lubrication and maintenance. <u>Specify if different.</u>	
8.36.11 The dump body floor shall be fabricated from 3/16" thick, minimum, AR400 Brinell (200,000 PSI tensile strength) sheet steel. <u>Specify if different.</u>	
8.36.12 The dump body shall have oak hardwood, side boards, bolted into the front and rear, 304 stainless steel, side board pockets, with stainless steel fasteners. The sideboards shall be twelve inches, (12"), high and two inches, (2"), thick, minimum. <u>Specify if different.</u>	
8.36.13 The dump body sides shall have two, (2), weld on, dirt shedding, horizontal braces. <u>Specify if different.</u>	
8.36.14 The dump body shall have a nine inch, (9"), side to floor radius joiner, fabricated from seven, (7), gauge minimum, 304 stainless steel. <u>Specify if different.</u>	
8.36.15 The dump body shall have a dirt shedding, boxed, top rail. <u>Specify if different.</u>	
8.36.16 The dump body under structure shall be of a	

western style, cross member-less design, to prevent floor “wash-boarding” and to provide easier cleaning of the under structure. <u>Specify if different.</u>	
8.36.17 The dump body shall have eight inch, (8”), 18.4 lb. ft., I-beam long members. <u>Specify if different.</u>	
8.36.18 The dump body shall have a grease-less rear hinge, with composite bushings and stainless steel pivot pins. <u>Specify if different.</u>	
8.36.19 The dump body shall have 3/8” diameter, stainless steel, spreader chains and heavy duty, reinforced stainless steel chain holders, for the tailgate. <u>Specify if different.</u>	
8.36.20 The dump body shall have a full and continuous welded, body shell and tailgate. <u>Specify if different.</u>	
8.36.21 The dump body shall have a heavy duty, stainless steel, self locking, bottom fold up ladder, at the left front of the dump body. When folded, the ladder shall be flush with the bottom of the side rail. <u>Specify if different.</u>	
8.36.22 The dump body shall have stainless steel, grip strut steps at the front, on both sides of the body, with grab handles, above the steps. <u>Specify if different.</u>	
8.36.23 A dump body, “Body Up” indicator light, supplied by the manufacturer, shall be installed, in the salter controller, so that it is easily visible from the driver's seat. <u>Specify if different.</u>	
8.36.24 The dump body shall have stainless steel, shovel holders, SH675SS (or other City approved alternate), attached with stainless steel hardware, to stainless steel mounting plates, welded to the left and right sides of the dump body. The City will provide a long handle shovel, for proper fitment. <u>Specify if different.</u>	
8.36.25 The stainless steel dump body shall not be top coated with primer or paint. <u>Specify if different.</u>	

<p>8.37 <b>DUMP BODY HOIST:</b> The dump body shall have a heavy duty, double acting, scissors type hoist. The hoist shall have a fifty, (50), degree dump angle, with composite, grease-able, pivot points. <u>Specify if different.</u></p>	
<p>8.38 <b>CHASSIS FENDERS:</b> The unit shall have a set of Minimizer fenders, MIN4000 Single Axle, mounted with B4578BTSA Stainless Steel Bolt-On kit (or other City approved alternate), installed on the chassis frame rail covering the rear tires. <u>Specify if different.</u></p>	
<p>8.39 <b>WING PLOW:</b> The unit shall have a front mounted, nine foot, (9'), long, cutting edge, Wausau Patrol Wing or Monroe Patrol Wing (or other City approved alternate). The top edge of the discharge end shall not extend past the right cutting edge (mailbox cut), for the purpose of standardization. <u>Specify make and model of wing.</u></p>	
<p>8.40.1 The wing shall be a heavy duty model. The wing shall be twenty-six inches, (26"), minimum, high at the toe and thirty-four inches, (34"), high at the heel. <u>Specify height in inches, at the toe and heel.</u></p>	
<p>8.40.2 The wing shall have independent, hydraulic, raise and lower functions, for the heel and toe. Refer to Section 8.34 for the details regarding wing sequencing. <u>Specify if different.</u></p>	
<p>8.40.3 The wing shall have a split trip edge. One, (1), set of carbide cutting edges, with cover blades and a heel curb guard shall be installed on the wing, with Grade 8 fasteners. <u>Specify length of each cutting edge segment.</u></p>	
<p>8.40.4 The wing shall have an adjustable, single rear, push arm, mounted an angle across the frame rails or above the frame, for improved ground clearance. The mounting shall be heavily reinforced, to prevent bending or damage, even under the most severe plowing conditions. <u>Specify if different.</u></p>	
<p>8.40.5 The wing shall have a plow edge marker attached on the right side of the unit. <u>Specify if different.</u></p>	

8.40.6 The patrol wing shall be mounted on a Monroe Para-Glide Wing post (or other City approved alternate). The chassis hood must tilt fully forward, without requiring disconnecting, removal or shifting of the wing mast assembly. <u>Specify if different.</u>	
8.40.7 The front wing post assembly shall be adjusted, to maximize distance from the ground, eight inches, (8”), minimum, but low enough to allow the cutting edge to contact the pavement along the entire length of the cutting edge. The wing post height shall allow for full cutting edge wear, along the entire length of the cutting edge. <u>Specify if different.</u>	
8.40.8 The wing assembly shall be installed to allow adequate clearance, for the main snow plow, to swing fully to the right plow stop, without contacting the wing moldboard or post. <u>Specify if different.</u>	
8.40.9 The hydraulic hose connections from the wing to the chassis shall be fitted with stainless steel, quick disconnect fittings. <u>Specify if different.</u>	
8.40.10 The unit shall have a snow wing bumper stop installed, on the wing structure (or other City approved location), to prevent the wing moldboard from contacting the cab, in the event that the moldboard is forced upward. <u>Specify if different.</u>	
8.40.11 The unit shall have a safety chain, with grab hook, or other manual device, to secure the snow wing in a fully stowed position, to prevent the snow wing from dropping, in the event of a hydraulic failure. <u>Specify if different.</u>	
8.40.12 The wing assembly shall be painted the same color as the snow plow and chassis cab, regardless of the snow wing manufacturer. <u>Specify if different.</u>	
8.41 <b>OPTION #5:</b> If Option #5 is selected, the Vendor shall supply a new, Wausau model MF 5.4, snowplow; with built in snow deflector, mounted plow markers, hydraulic angling and all aluminum links. <u>Specify cost of Option #5.</u>	

<p>8.41.1 The snow plow shall have stainless steel bearing block u-bolts, stainless steel fastening plates, and stainless steel lock nuts installed instead of standard mild steel. <u>Specify if different.</u></p>	
<p>8.41.2 The snow plow shall have all aluminum upper and lower links installed. <u>Specify if different.</u></p>	
<p>8.42 <b>FRONT SNOW PLOW MOUNTING:</b> If Option #5 is not selected, the City will supply an equivalent, used, MF 5.4 snowplow for the units. The Vendor shall install the snow plows, controls and hydraulic connectors. The snow plows shall be mounted to a flat plate, Wausau model SQH Quick Hitch, secured to the truck chassis. The “Quick Hitch” and bracing shall be fabricated and installed, per Wausau specification, for proper plow mounting, operation and longevity. The snow plow chassis mount shall be designed, fabricated and installed, so the MF 5.4 parallelograms are parallel to the ground, when the plow is in the normal plowing position, to allow the cutting edge to contact the pavement along the entire length, <b>for complete cutting edge wear.</b> All existing City of Kenosha Wausau MF 5.4 snow plows must be able to attach to the Quick Hitch plate, without any modifications. <b>NO EXCEPTIONS.</b> <u>Specify if different.</u></p>	
<p>8.42.1 The Wausau SQH Quick Hitch shall have a latch mechanism, to allow the snow plow to be installed and removed, without tools. <u>Specify if different.</u></p>	
<p>8.42.2 The snow plow shall be painted the same color as the snow wing and chassis cab. <u>Specify if different.</u></p>	
<p>8.43 <b>CAMERA SYSTEM:</b> The unit shall have an installed backup camera and wing camera, wired to display in the salter control monitor. <u>Specify if different.</u></p>	
<p>8.43.1 The unit shall have a backup camera, mounted in a stainless steel enclosure, at the rear of the unit. Final installed location to be determined by the City, prior to installation. The camera provided shall be a full color, Sony Super HAD CCD HC IR250 Series, Infrared Color Camera (or other City approved alternate). <u>Specify make and model of cameras.</u></p>	

8.43.2 The unit shall have a wing camera, mounted inside the cab , at the top rear of the passenger window. Final installed location to be determined by the City, prior to installation. The camera shall be of the same make and model as the backup camera installed on the unit. <u>Specify if different.</u>	
8.43.3 The camera shall have a 100% weather and salt resistant housing. <u>Specify if different.</u>	
8.43.4 The camera shall have an internal heating system which activate in cold temperatures. <u>Specify if different.</u>	
8.43.5 The camera and cable connections shall be designed for the toughest on and off road environments and meet military specifications. <u>Specify if different.</u>	
8.43.6 The camera shall be capable of either normal or mirror images. <u>Specify if different.</u>	
8.43.7 The unit shall have a heavy duty, anti-vibration camera brackets, with sun shields. <u>Specify if different.</u>	
8.43.8 The camera shall have a minimum two, (2), year factory warranty. <u>Specify if different</u>	
8.43.9 The camera shall have a minimum field of view of 130 degrees. <u>Specify field of view.</u>	
8.43.10 The camera shall have a minimum resolution of 420 TV lines. <u>Specify if different.</u>	
8.44.11 The camera shall have an illumination rating of 0.1 Lux at F2.0/f=2.9mm or 0 Lux when LED activated. <u>Specify if different.</u>	
8.43.12 The camera shall have an operating temperature rating between -30 degrees Centigrade and 60 degrees Centigrade. <u>Specify if different.</u>	
8.43.13 The camera shall have a storage temperature	

rating between -50 degrees Centigrade and 60 degrees Centigrade. <u>Specify if different.</u>	
8.43.14 The camera shall have a picture element of NTSC:270,000 PAL:320,000. <u>Specify if different.</u>	
8.43.15 The camera shall have a 1/3" Sony Super HAD Color image sensors. <u>Specify if different.</u>	
8.43.16 The camera shall be connected to the cab mounted, two, (2), channel, salter controller color monitor (or other City approved alternate). <u>Specify make and model of monitor.</u>	
8.43.17 The color monitor shall be no less than ten inches, (10"), be LED back lit, touchscreen and have audio capability. <u>Specify if different.</u>	
8.43.18 The monitor shall be designed for the toughest on and off road environments and have a rainproof, rubber, water resistant housing (IP65). <u>Specify if different.</u>	
8.43.19 The monitor mount shall have a built in sun shield and have an extreme duty, vibration resistant (10G) rating. <u>Specify if different.</u>	
8.43.20 The monitor shall have a minimum two, (2), year factory warranty. <u>Specify if different.</u>	
8.43.21 The monitor shall have a minimum resolution of 800 x (RGB) x 480. <u>Specify if different.</u>	
8.43.22 The monitor shall have a minimum, LCD brightness rating of 400CDM2. <u>Specify if different.</u>	
8.43.23 The monitor shall have a shock rating of no less than 10G. <u>Specify if different.</u>	

8.43.24 The monitor shall have a screen mode no less than 16.9 wide screen. <u>Specify if different.</u>	
8.43.25 The monitor shall have a minimum field of view of 50 degrees top / 70 degrees bottom / 70 degrees left / 70 degrees right. <u>Specify if different.</u>	
8.43.26 The monitor shall have a reverse parking grid display, with an on-off feature. <u>Specify if different.</u>	
8.43.27 The monitor shall have a rated operating temperature range between -20 degrees Centigrade and 60 degrees Centigrade. <u>Specify if different.</u>	
8.43.28 The monitor shall have a rated storage temperature range between -30 degrees Centigrade and 85 degrees Centigrade. <u>Specify if different.</u>	
<p>8.44 <b>PAINT:</b> The unit shall have all seams caulked and be thoroughly cleaned and de-greased prior to painting. The cab shall be factory primed and painted with a two-component, base coat/clear coat, paint process. The truck chassis shall be factory primed and painted. The rest of the unit (with the exception of stainless steel or polished, aluminum surfaces) shall be painted with two, (2), medium coats of a two-component, self-etching primer such as Martin Senour #TE504 and #TER514 (or other City approved alternate). The self-etching primer shall be top coated with two, (2), coats of a two-component, epoxy primer-surfacer such as Martin Senour #TP570 and #TH572 (or other City approved alternate). The epoxy primer-sealer shall be applied with two, (2), full, cross-coats of a two-component, Acrylic Urethane Enamel, color topcoat such as Martin Senour MSU 3.5 Acrylic Urethane Enamel (or other City approved alternate). The unit color shall be the same as the factory color. All non-factory paint shall be City approved, in advance, of the actual painting, and be applied at the manufacturer's recommended rate and paint thickness. FOR VERIFICATION, ALL NON-FACTORY EMPTY PAINT CANS SHALL BE SAVED AND PROVIDED TO THE CITY PRIOR TO THE DATE OF DELIVERY. <b>Only non-stainless steel surfaces shall be painted.</b> <u>Specify if different.</u></p>	

<p>8.44.1 The chassis cab color shall be a factory applied, yellow, base coat (Wheatland Yellow-Dupont Paint #43536, School Bus Yellow-Ford Paint Code #84S53, or other City approved alternate) with a clear coat. <u>Specify paint color and paint code used.</u></p>	
<p>8.44.2 The truck chassis shall be factory primed and painted black. <u>Specify if different.</u></p>	
<p>8.44.3 Specify the brand name and paint # of the two-component, self-etching primer (Martin Senour #TE504 and #TER514 or other City approved alternate).</p>	
<p>8.44.4 Specify the brand name and paint # of the two-component, epoxy primer-surfacer (Martin Senour #TP570 and #TP572 or other City approved alternate).</p>	
<p>8.44.5 Specify the brand name and paint # of the two-component, Acrylic Urethane Enamel topcoat (Martin Senour MSU 3.5 or other City approved alternate).</p>	
<p>8.44.6 The surfaces primed and top-coated, by the body up-fitter, shall be warranted against rust-through, peeling, cracking, blistering or general failure of the top coat to adhere to the surface, for a minimum, of five, (5) years. <u>Specify any exceptions.</u></p>	
<p>8.44.7 The stainless steel, dump body and spreaders shall not be top-coated with primer or paint. <u>Specify if different.</u></p>	
<p>8.45 <b>OPTION #6:</b> If Option #6 is selected, the Vendor shall supply a new, under tailgate, direct drive, stainless steel salt spreader. <u>Specify cost of Option #6.</u></p>	
<p>8.45.1 The spreader trough shall be constructed of seven, (7), gauge, 304 stainless steel, minimum. <u>Specify if different.</u></p>	
<p>8.45.2 The spreader end plates shall be 1/4", 304 stainless steel, minimum. <u>Specify if different.</u></p>	
<p>8.45.3 The spreader shall have full opening top and</p>	

bottom clean out doors. <u>Specify if different.</u>	
8.45.4 The spreader shall have one way flighting for material discharge to the left side only. <u>Specify if different.</u>	
8.45.5 The spreader shall have a six inch, (6"), minimum, diameter stainless steel auger. <u>Specify if different.</u>	
8.45.6 The spreader shall have a stainless steel spinner frame and be of a self leveling design. <u>Specify if different.</u>	
8.45.7 The spreader shall be attached to the dump body with stainless steel, quick detach, mounting brackets. <u>Specify if different.</u>	
8.45.8 The spreader will include stainless steel removable tailgate shields. <u>Specify if different.</u>	
8.45.9 The spreader shall be plumbed for pre-wetting of the salt, with 2 nozzles at the spreader discharge end. <u>Specify if different.</u>	
8.45.10 The spreader shall have a 140 gallon, minimum, poly, tailgate hung tank, with bull fill and wash out kit, and stainless steel mounting brackets. <u>Specify if different.</u>	
8.45.11 The spreader shall have a non-corrosive enclosure to house the pre-wet hydraulic pump, motor and closed loop flow meter, mounted to the stainless steel tank brackets. The hydraulic pump shall deliver 7 GPM, minimum. <u>Specify if different.</u>	
8.45.12 The spreader shall have a LED work light mounted on the left side of the unit, wired to the switch panel in the cab, for use as a salter light. <u>Specify if different.</u>	
8.46 <b>MISCELLANEOUS:</b> The unit shall have a five, (5), pound, ABC rechargeable, fire extinguisher with a one piece, friction fit bracket, Part # 5012Z (available from Belle City	

Extinguisher or other City approved alternate), installed at a location in the vehicle, selected, in advance, by the City. <u>Specify if different.</u>	
8.46.1 The unit shall be supplied with a reflector flare kit. <u>Specify if different.</u>	
8.46.2 The unit shall be supplied with four, (4), complete sets of keys. <u>Specify if different.</u>	
8.46.3 The Vendor shall be responsible for registering and providing municipal license plates for each unit. <u>Specify if different.</u>	
9. <b><u>DELIVERY:</u></b> Delivery shall be made to Kenosha Fleet Maintenance Division, 3725 65 <sup>th</sup> St., Kenosha, Wisconsin, 53142, after all “pre-delivery” services have been performed.	
9.1 The Vendor shall be responsible for promptly correcting any equipment delivery deficiency, at no cost to the City, within ten, (10), calendar days after the City notifies the Vendor of such deficiency in writing. If the Vendor fails to correct or replace the defect within the period specified, the City, at its discretion, may notify the Vendor in writing that the Vendor may be debarred as a City bidder and/or be subject to contractual default if the corrections are not completed to the satisfaction of the City within ten, (10), calendar days of receipt of notice. If the Vendor fails to satisfy the delivery requirements within the period stipulated in the notice, the City may (a) place the Vendor in default of its contract and/or (b) procure the products or services from another Vendor and charge the Vendor for any additional costs that are incurred by the City either through a credit memorandum or through invoicing.	
10. <b><u>MANUALS/LITERATURE:</u></b> One, (1), Parts, Service/Technical, and Electrical Diagram Manual and two, (2), Operator Manuals for the chassis shall be provided, with the unit, at the time of delivery. A CD-ROM may be substituted for the Service/Technical Manual. A complete set, as stated above, shall be delivered with the unit. <u>Specify if different.</u>	
10.1 Two, (2), Parts/Service/Operator Manuals for each	

<p>component or selected Option installed and/or delivered with the unit, that is not supplied by the chassis manufacturer, shall be provided with the vehicle, at the time of delivery. <u>Specify if different.</u></p>	
<p>10.2 For the purpose of identifying components installed by the body up fitter, a specific build list with part numbers of all non-chassis components, shall be included with each unit, at the time of delivery. <u>Specify if different.</u></p>	
<p>11. <b>TRAINING INSTRUCTION:</b> Training shall be provided by factory trained personnel with regard to basic operation, maintenance, trouble shooting and tune-up procedures for the entire unit. This training shall be a minimum of two, (2), hours in duration, be conducted at a location of the City's choosing, and include up to twenty, (20), City personnel. All such training and instruction shall be included in the proposal price. <u>Specify if different.</u></p>	
<p>12. <b>BRAND NAMES:</b> For the purpose of this clause, references to brand names shall mean brand name and/or make or model number.</p>	
<p>12.1 <b>REFERENCE:</b> If articles other than those specified, for “the purpose of standardization”, have been identified in the proposal by a “brand name” and model number, such reference is intended to be descriptive, and not restrictive. It is for the sole purpose of indicating, to the prospective Vendors, a description of articles that will be satisfactory. Other items of equal quality may be considered. Samples and/or demonstrations may be required.</p>	
<p>13. <b>SUBSTITUTION:</b> Unless the Vendor clearly indicates in the proposal that the offering is a different article, the proposal shall be considered as an offering of the “brand name” article.</p>	
<p>14. <b>DEMONSTRATION:</b> Attendance at a pre-award conference may be necessary to verify compliance with this specification. Upon request, Vendors shall submit proposed equipment for demonstration before this contract is awarded.</p>	
<p>15. <b>SUBCONTRACTING:</b> The Vendor shall be responsible for the workmanship of all of their subcontractors. All subcontracted</p>	

work shall conform with this specification and be in compliance with the manufacturer's recommendations and procedures.	
15.1 The Vendor shall also assume full warranty responsibility which shall include all work performed or parts furnished by their subcontractors.	
<b><u>ACCESSORY WIRE SPECIFICATIONS</u></b>	Proposers Specifications
1 <b><u>GENERAL</u></b> : It is the intent of this specification to describe the minimum requirements for wiring any accessories that are installed in or on the equipment being purchased by the City of Kenosha.	
2 <b><u>SAFETY/HEALTH</u></b> : All wiring shall comply with all applicable Federal Motor Vehicle Safety Standards, S.A.E. Codes, the Federal Occupational Safety and Health Act and be in accordance with the Wisconsin Administrative Code.	
3 <b><u>TECHNICAL REQUIREMENTS</u></b> :	
3.1 <b><u>TYPE</u></b> : Wiring for all add-on electrical accessories.	
3.2 <b><u>COMPONENTS</u></b> :	
3.2.1 <b><u>Wire</u></b> : The wire shall be of adequate gauge to carry the anticipated current loads.	
3.2.2 <b><u>Circuit Breakers</u></b> : All add-on accessories shall be tapped into the equipment's main circuit breaker panel.	
3.2.3 <b><u>Terminals</u></b> : Screw type.	
3.2.4 <b><u>Connections-Splices</u></b> : All connections and splices shall be made using the correct size nylon or PVC insulated butt connector, properly assembled and crimped. Scotchlock, or similar self stripping quick splice type connectors are not acceptable.	
3.2.5 <b><u>Insulation</u></b> : All connections and splices shall be protected with heat shrinkable tubing, such as irradiated polyolefin,	

<p>or adhesive sealant lined tubing. The tubing shall be properly installed, using the correct tooling; i.e. - a heat gun. <b>The use of open flame type heat is not acceptable.</b></p>	
<p>3.2.5.1 <b>Note:</b> The use of heat seal type butt connectors such as Velvac Splice 'N Seal, (or city approved alternate), can be used to satisfy requirements 4 and 5 above. In addition, all exterior connections shall be protected with 3M Scotchkote Electrical Coating, (or city approved alternate).</p>	
<p>3.2.6 <b>Exposed Wiring:</b> All exposed wiring shall be installed into the correct size wiring loom, which shall extend the full length of the wiring to within (6") six inches of its destination. The loom shall be of the type that will fully enclose the wiring. Spiral wrap-around and full length slit convoluted type looms are not acceptable. In addition, the loom shall be sealed at each end and be anchored firmly at least every (24") twenty-four inches using nylon cable ties or cable clamps.</p>	
<p>3.2.7 <b>Grommets:</b> All holes drilled or cut for wiring, cables, looms, controls, etc., shall be fitted with the correct size grommet, or type of boot to fully protect the accessory wiring. All unused holes or openings shall be sealed in an approved manner.</p>	
<p>3.2.8 <b>Circuit Identification:</b> All add-on circuits shall be labeled, and a simple wiring diagram provided.</p>	
<p>4 <b>BRAND NAMES:</b> For the purpose of this clause, references to brand names shall mean brand name and/or make or model number.</p>	
<p>5 <b>REFERENCES:</b> If articles have been identified in the specification by a brand name (or City approved alternate) description, such reference is intended to be descriptive, but not restrictive and is for the sole purpose of indicating to prospective vendors a description of articles that will be satisfactory.</p>	
<p>6 <b>DESCRIPTIVE LITERATURE:</b> Vendors offering a different article shall submit descriptive literature to enable a determination as to the quality and characteristics of the item being offered.</p>	

<b>OPTION NUMBER</b>	<b>OPTION</b>
Option #1	Five Year Extended Power Train Warranty
Option #2	350 HP Engine Upgrade
Option #3	Engine Diagnostic Software
Option #4	Drive Axle Disc Brakes
Option #5	Wausau MF5.4 Snow Plow
Option #6	Stainless Steel Tailgate Salter w/ Pre-wet system

**CITY OF KENOSHA  
PUBLIC WORKS DEPARTMENT - STREET DIVISION**

**SEVEN (7) SINGLE-AXLE DUMP TRUCKS**

**PROPOSAL NOTICE #12-19**

**PROPOSAL**

City of Kenosha  
Municipal Office Building  
625 52nd Street, Room 208  
Kenosha, WI. 53140

Purchasing,

We hereby propose to provide and deliver F.O.B. Destination, to City of Kenosha, Fleet Maintenance Division Garage, 3725 65th Street, Kenosha, WI. 53142, the equipment specified in accordance with the City of Kenosha specifications at the following firm prices:

2020 Make/Model: \_\_\_\_\_

Base Price : \$ \_\_\_\_\_ x 7 Units = \$ \_\_\_\_\_

Price Break based on multiple units purchased up to 7 units \$ \_\_\_\_\_

**OR**

2021 Make/Model: \_\_\_\_\_

Base Price : \$ \_\_\_\_\_ x 7 Units = \$ \_\_\_\_\_

Price Break based on multiple units purchased up to 7 units \$ \_\_\_\_\_

Option #1: Extended Five (5) Year Full Extended Warranty:

\$ \_\_\_\_\_ EA  
**(2.5 of specifications, Page 42)**

Option #2: Option #3: 350 H.P. Engine:

\$ \_\_\_\_\_ EA  
**(8.4.1 of specifications, Page 45)**

Option #3: Diagnostic Software:

\$ \_\_\_\_\_ EA  
**(8.4.3 of specifications, Page 45)**

Option #4: Air Disc Brakes /Drive Axle:

\$ \_\_\_\_\_ EA  
**(8.7.7 of specifications, Page 47)**

Option #5: Wausau MF5.4

**(8.41 of specifications, Page 65)**

Option #6: Stainless Steel Spreader:

\$ \_\_\_\_\_ EA  
**(8.45 of specifications, Page 70)**

CITY OF KENOSHA  
PUBLIC WORKS DEPARTMENT - STREET DIVISION

SIX (6) - TANDEM-AXLE  
AND SEVEN (7) SINGLE-AXLE DUMP TRUCKS  
NOTICE #12-19

PROPOSAL - GENERAL INFORMATION

Tandem-Axle Estimated Delivery time: \_\_\_\_\_ Days

Single-Axle Estimated Delivery time: \_\_\_\_\_ Days

Manufacturers Literature Included Yes \_\_\_\_\_ No \_\_\_\_\_

Specifications Sheets Completed and Submitted Yes \_\_\_\_\_ No \_\_\_\_\_

Warranty: (Please be Specific) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Service Facility:

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Telephone: \_\_\_\_\_ FAX: \_\_\_\_\_

E-Mail: \_\_\_\_\_.

Payment terms \_\_\_\_\_ %, \_\_\_\_\_ days, Net \_\_\_\_\_ days

Respectfully submitted,

Firm: \_\_\_\_\_

Signature: \_\_\_\_\_

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

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ FAX: \_\_\_\_\_

E-Mail \_\_\_\_\_ n \_\_\_\_\_

Date: \_\_\_\_\_