THE CITY OF ROCKFORD ILLINOIS, USA

Carrie Eklund
Central Services Manager
Finance Department

INVITATION TO BID
PATCHER TRUCK
BID NO.: 413-PW-055

4/16/13

Name of Bidding Firm: _____

Address _____ City: _____ State: ____ Zip: _____

Phone: _____ Fax: _____

E-Mail: _____

Bid Opening Time and Date 11:00 a.m., Local Time, Wednesday, May 8, 2013

Bids will be accepted until the specified opening time and date. Any bidder attempting to deliver after the opening time and date will be refused.

Bid Deposit/Bid Bond:	NO
Prevailing Wage	NO
Performance Bond:	NO

PLEASE MARK THE RETURN SEALED ENVELOPE:

1. Bid Opening Date and Time
2. Title of Job
3. Bid Number

RETURN BIDS TO:

City of Rockford
Central Services Manager
425 East State Street, 4th Floor
Rockford, Illinois 61104
Telephone: (815) 987-5560

BIDS SUBMITTED BY FASCSIMILE OR E-MAIL WILL NOT BE ACCEPTED

BID RESULTS:

Bid results may be obtained by telephone at (815) 987-5560, by fax at (800) 380-7174, or at www.rockfordil.gov

CITY OF ROCKFORD, ILLINOIS—BIDDING GENERAL CONDITIONS

1. Pricing. The bidder shall insert price for all bid items and all other information requested in these specifications. The price shall be the *full, delivered cost* to the City of Rockford with no additions.

2. Total versus "Per Item" Awards. The City generally awards contracts based on a lump sum basis to the lowest responsible and responsive bidder. However, the City may choose to award on a per item basis. Therefore, each bidder must submit pricing for each item indicated on the bid forms. Bidders must clearly indicate which items are bid and which are not.

3. Delivery of Merchandise. Delivery terms will always be Freight On Board (FOB)–Destination. The City of Rockford accepts no responsibility for the condition of any merchandise purchased prior to acceptance by City Personnel. Failure to comply with this requirement may constitute rejection of the bid.

4. Acceptance of Merchandise at Delivery. The City of Rockford reserves the right to refuse acceptance of delivered merchandise that differs substantially from the specifications in this invitation to bid or as otherwise permitted by Illinois law.

5. Prompt Payment Act. The City of Rockford intends to comply with the governmental prompt payment act. The awarded vendor will be paid upon submission of invoices to: City of Rockford Accounts Payable, 425 East State Street, Rockford, IL 61104.

6. W-9 Request for Taxpayer Identification Number. Prior to issuance of a purchase order, the successful bidder will be required to supply the City of Rockford with a federal W-9 Request for Taxpayer Identification Number and Certification. Failure to comply with this requirement will be considered a violation of contract terms, for which the City may bar the vendor from bidding for a period of up to three years.

7. Legal Compliance. The vendor awarded this contract will comply with all Federal, State, County, and City laws, ordinances, rules and regulations, which in any manner affect the product or service placed for bid herein. Lack of knowledge on the part of the awarded vendor of applicable law will in no way be cause for release of this obligation. If the City becomes aware of violation of any laws, ordinances, rules and regulations on the part of the awarded vendor, it reserves the right to reject any bid, cancel any contract, and pursue any other legal remedies deemed necessary.

8. Legal Requirements. This contract sets forth the entire final agreement between the City of Rockford and the bidder and shall govern the respective duties and obligations of the parties. The validity of this contract, and any disputes arising from the contract, shall be governed by the laws of the State of Illinois. Any litigation under this agreement shall be resolved in the trial courts of Winnebago County, State of Illinois. Should a provision of this contract be declared invalid by a court of competent jurisdiction, it shall not affect the validity of the remaining provisions of the contract.

9. Safety. Prevention of accidents at any project is the sole responsibility of the awarded vendor and its subcontractors, agents, and employees. The awarded vendor, its subcontractors, agents, and employees shall be fully and solely responsible for the safety of this project. The awarded vendor shall retain exclusive and direct control over the acts or omissions of its subcontractors, agents and employees, and any other persons performing portions of the work and not directly employed by the awarded vendor.

10. Criminal Background Check. When necessary for the protection of citizens and/or City staff, the City may require an awarded vendor to conduct a criminal background check on all of its personnel who will have direct contact with City facilities or residents/businesses served under this contract. Personnel are defined as representatives, agents, employees, subcontractors, or anyone else who will be utilized to fulfill obligations under this contract. Criminal background checks, at a minimum, shall consist of a county level felony and misdemeanor check for each county in which the personnel resided in the last 10 years. The awarded vendor shall notify the City of any of its personnel who have been convicted of a felony or misdemeanor prior to commencing any work under this contract. At the City's discretion, personnel with any felony or misdemeanor convictions which raise a concern about the safety of building, property, or City staff/resident's personal security, or is otherwise job related (as determined by the City) shall not perform work under this contract. Once given notice that a background check(s) will be required, it must be completed within 14 calendar days so as to not delay work to be completed.

11. Control of the Work. With respect to the awarded vendor's own work, the City shall not have contractual, operational, and/or supervisory control over and/or charge of the work and shall not be responsible for construction means, methods, techniques, sequences, procedures, and programs in connection with the awarded vendor's work, since these are solely the vendor's responsibility under the agreement. The City shall not be responsible for the awarded vendor's failure to carry out the work in accordance with the agreement's terms and conditions. The City shall not have control over and/or charge of acts or omissions of the awarded vendor, its subcontractors, and/or their agents or employees, or any other person performing portions of the work not directly employed by the awarded vendor. The awarded vendor shall be considered to be an "independent contractor" pursuant to Illinois law.

12. Bid Bond. When required on the cover sheet, a bid bond for not less than 5 percent of the bid amount must accompany all bids as a guarantee that if the bid is accepted, the bidder will execute and file the proper contract. A bank cashier's check, bank draft, or certified check equal to the amount specified is acceptable in lieu of a bid bond. Bid bonds of the two lowest firms will be retained until the contract is awarded.

13. Performance Bond. When required by the specifications herein, the awarded vendor shall furnish a performance bond equal to the amount of the contract, acceptable to the City, within 14 calendar days after notification of contract award. Failure to furnish the required bond within the time specified may be cause for rejection of the bid and any bid deposit may be retained by the City as liquidated damages and not as a penalty.

14. Taxes. No charge will be allowed for taxes from which the City of Rockford, Illinois is exempt. The City of Rockford, Illinois is not liable for the Illinois Retailers' Occupation Tax, the Service Occupation Tax or the Service Use Tax. The City is exempt from the Federal Excise and Transportation Tax.

15. Withdrawal of Bids. Firms may withdraw or cancel their bids at any time prior to the advertised invitation to bid opening. After the opening time, no bid shall be withdrawn or cancelled. All bids shall be firm and valid for a period of sixty (60) calendar days. If a bidder to whom a contract is awarded refuses to accept the award, the City may, at its discretion, suspend the bidder for a period of time up to three (3) years.

16. Subcontracting. The bidder shall provide information for all subcontractors, leased operators/equipment, and suppliers and all other information requested in the Subcontractor and Supplier Detail Forms attached. Requests for deviations from the completed detail forms submitted must be made in writing, and reviewed and approved by the City's Diversity Procurement Officer and the Central Services Manager or designee. The awarded vendor may not subcontract any portion of the contract after award without written consent of the City of Rockford

Central Services Manager. When subcontractors are used, the awarded vendor is required to pay subcontractors promptly after completion of work. Delay of payment is prohibited.

17. Termination of Contract. The City of Rockford reserves the right to terminate the contract in its entirety or in portions, upon written notice to the awarded vendor, if the Rockford City Council does not appropriate sufficient funds to complete the contract or in the event of default by the awarded vendor. Default is defined as failure of the awarded vendor to perform any of the provisions of this contract or failure to make sufficient progress so as to endanger performance of this contract in accordance with its terms. In the event of default, the City may purchase the product(s) and/or service(s) from other sources and hold the defaulting company responsible for any excess costs occasioned thereby. The City may require payment of liquidated damages for non-performance. Should default be due to failure to perform or because of a request for a price increase, the City reserves the right to remove the firm from the City's bidder list for a period of up to three years.

18. Late Bids and Proposals. Regardless of cause, late bids and proposals will not be accepted and will automatically be disqualified from further consideration. It shall be solely the vendor's risk to ensure delivery at the designated office by the designated time. Late bids and proposals will not be opened and may be returned to the awarded vendor at their request and expense.

19. EEO Forms. Each firm shall be required to submit with its bid information all EEO forms included in the invitation to bid package. Any bid which fails to include the properly completed compliance items will not be read and will not be considered. All subcontractors shall also be required to comply with the same EEO forms as the firm.

20. Restrictive or Ambiguous Specifications. It is the responsibility of the bidding firm to review the invitation to bid specifications and to notify the Central Services Manager if the specifications are formulated in a manner that would unnecessarily restrict competition. Any such protest or question regarding the specifications or invitation to bid procedures must be received by the Central Services Division not less than seventy-two hours prior to the time set for the opening. In the event a contract term is not defined within the contract document, the term will be given its ordinary dictionary definition.

21. Bid Protest. Firms wishing to protest bids or awards shall notify the Central Services Manager in writing within 7 days after the invitation to bid opening. The notification should include the bid number, the name of the firm protesting, and the reason why the firm is protesting the bid. The Central Services Manager will respond to the protest within seven (7) calendar days. A successful protest may result in the reversal of a previously awarded contract.

22. Disputes. In case of disputes as to whether or not an item or service quoted or delivered meets specifications, the decision of the Central Services Manager, or authorized representative shall be final and binding to all parties. The Central Services Manager has the right to waive technicalities as they see fit. The Central Services Manager may request a written recommendation from the head of the department using the equipment or service being procured.

23. Exceptions. Any deviations from these specifications shall be noted and submitted with the bid. Failure to address deviations from specifications may result in bid rejection.

24. Acceptance/Rejection of Bids. The City of Rockford reserves the right to accept or reject any or all bids or proposals at any time, for any reason, including but not limited to the Rockford City Council not appropriating

sufficient funds to purchase equipment or complete the contract. The City may make awards in any manner deemed in the best interest of the City.

25. Prevailing Wage. When indicated on the cover page of this document, this contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 *et seq.* ("the Act"). The Act requires awarded vendors and subcontractors to pay laborers, workers, and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. When required, awarded vendors are responsible for paying current prevailing wage rates, as posted on the Illinois Department of Labor's website at: http://www.state.il.us/agency/idol/rates/rates.HTM. It is the awarded vendor's responsibility to verify current wage rates, as they are updated monthly. All awarded vendors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice, and record keeping duties.

26. Certified Payroll. All Certified Payroll reports required to be submitted under the Prevailing Wage Act, 820 ILCS 130, must be submitted monthly via email, in Excel or some format compatible with Excel, to certified.payroll@rockfordil.gov.

27. Substance Abuse Prevention. When required by Illinois State Statutes, awarded vendors must have in place and file with the City a written program for prevention of substance abuse among its employees. This program must include pre-hire, random, reasonable suspicion, and post-accident drug and alcohol testing, as required by the Substance Abuse Prevention on Public Works Projects Act.

28. Apprenticeship Requirement. For construction contracts over $50,000, awarded vendors must participate in apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training for all Trades that will be in the awarded vendor's (or his subcontractor's) employment, with each worker receiving the required apprenticeship/training appropriate to his trade. Owners or work performed by owners is not exempt from the apprenticeship and training requirement.

29. Indemnification. To the fullest extent permitted by law, the awarded vendor shall indemnify and hold harmless the City, its officers, representatives, elected and appointed officials, agents, and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from the awarded vendor's performance of work under this agreement, and indemnifies and agrees to defend and hold harmless the City against any and all losses, claims, damages, and expenses arising from the work performed hereunder of the erection, construction, placement, or operation of any scaffold, hoist, crane, stay, ladder, support, or other mechanical contrivance in connection with such work including but not limited to losses, claims, damages, and expenses arising pursuant to claims asserted against the City pursuant to theories premised upon section 414 of the Restatement (Second) of Torts and section 343 of the Restatement (Second) of Torts.

This indemnification agreement shall not be limited in any way by any limitations on the amount or type of damages, compensation, or benefits payable by or for the awarded vendor under Worker's Compensation Acts, disability benefit acts, or other employee benefit acts, and serves as an express agreement to waive the protection of Kotecki v. Cyclops Welding Corp., 146 Ill.2d 155, 585 N.E.2d 1023 (1991) in Illinois.

Further, the awarded vendor agrees that it is solely responsible for compliance with all safety laws applicable to the work performed hereunder, including but not limited to the Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1960 and all standards and regulations which have been or shall be promulgated by the agencies which administer the Acts.

Under no circumstances shall the awarded vendor, its subcontractors, agents, and employees be required to indemnify the City for its own negligence.

30. Officers. Each bidder affirms, by submission of a response to this bid or request for proposals, that no officer of the City of Rockford, Illinois, is directly or indirectly interested in the proposal for any reason of personal gain.

31. Non-Waiver. The failure by the City to require performance of any provision shall not affect the City's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this contract constitute a waiver of any subsequent breach or default or a waiver of the provision itself.

32. Professional Services Selection Act. The City of Rockford intends to comply with 50 ILCS 510/5 governing the selection of professional services. Any reference in these terms and conditions to supplying pricing or price as a determining factor in selection do not apply for services covered by said act.

33. The City of Rockford reserves the right to accept or reject any and all proposals and to waive technicalities in submitted bids.

BID REQUIREMENTS FOR EQUAL EMPLOYMENT OPPORTUNITY

All bidders seeking to do business with the City of Rockford are **REQUIRED** to submit with any formal, sealed bid all of the following documents and information, attached herewith, completed and signed:

1. Equal Employment Opportunity Affirmative Action Plan Statement of Policy.

2. The Statement of Non-Compliance and Certificate of Non-Segregated Facilities.

3. The Contractor or Vendor Workforce Data Form listing all current employees, by classification, directly employed by the bidder. All categories of information requested must be supplied.
   Note: The number of employees must be entered under each category (no check marks)

   Below are the Federal definitions of the following racial groups accepted as minorities by the City of Rockford:
   Black: A person having origins in any of the Black racial groups of Africa, not of Hispanic origin.
   Hispanic: A person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race.
   Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes for example, China, Japan, Korea, the Philippine Republic and Samoa.
   American Indian or Alaskan Native: A person having origins in any of the original peoples of North America.

4. Your State of Illinois Pre-Qualification Certification Number, issued by the Illinois Department of Human Rights for the Illinois Department of Human Rights Act, must provide expiration date entered in the place provided therefore.

5. Certificate of Non-Barred Bidding

6. All executed Subcontractor/Leased Operator and Supplier forms.

If you have not obtained your State of Illinois Pre-Qualification Number (item #4), by signing these documents you agree to make application for this number within 30 days from the date of bid opening.

ANY BID WHICH FAILS TO INCLUDE THE CITY OF ROCKFORD EEO PAGES 2, 4, AND 5, COMPLETED AND SIGNED WITH YOUR SEALED BID WILL NOT BE READ AND WILL NOT BE CONSIDERED – NO EXCEPTIONS.

Falsification of any required Equal Employment Opportunity or Affirmative Action information on the part of the bidder could result in rejection of the bid submitted or in the case where a contract has already been awarded, in the cancellation of said contract.

Any questions pertaining to E.E.O. requirements should be addressed to Ron Moore, Diversity Procurement Officer, Legal Department, 425 East State Street, Rockford, Illinois 61104, Phone: (815) 987-5622 or ron.moore@rockfordil.gov

EQUAL EMPLOYMENT OPPORTUNITY
AFFIRMATIVE ACTION PLAN
STATEMENT OF POLICY

It is the policy of this company, _____
to provide equal employment opportunity without regard to race, religion, color, national origin, handicap, age or sex through a program of positive action affecting all employees. In this program, our company carries out the requirements of Federal Executive orders 11246 and 11375, Civil Rights Act of 1964, Equal Employment Act of 1972, and all other applicable laws, and indicates its active support of the principle of equal opportunity in employment.

At present, _____ % of our work force are minorities and _____ % of our work force are females, and we will attempt to utilize minorities and females through a positive, continuing program in all jobs for which we contract in the future. Our company will utilize referrals from the City of Rockford's Diversity Procurement Officer for use of minorities and females regarding any future job vacancies.

It is also our intent to make efforts to purchase supplies or equipment from small business concerns located in the City of Rockford or counties of Winnebago or Boone and owned in substantial part (at least 51 per cent) by minorities or females.

_____ is the official who will be responsible for implementing this policy statement.

_____ will be designated as the Equal Opportunity Officer in our company, responsible for submission of all required equal employment opportunity documents.

In addition, _____ is hereby authorized to sign payroll as well as this company's officers. (NOTE: If only officers will be authorized to sign payrolls, please fill in "No One" in this space.)

STATEMENT OF NONCOMPLIANCE

If the equal employment opportunity hearing committee determines that a contractor, subcontractor/leased operator of equipment or bidder is not in compliance with this chapter, (also known as Chapter 11, Article III the City of Rockford Equal Opportunity Employment Ordinance), the hearing committee shall issue and serve upon such person a written statement of noncompliance setting forth the manner in which it finds such person has violated this chapter, and imposing and/or requiring appropriate sanctions, including, but not limited to any and/or all of the following:

a. Denying, suspending or revoking qualifications, or declaring the contractor or subcontractor irresponsible and ineligible for future contracts or subcontracts until such time as the contractor or subcontractor shall demonstrate to the equal employment opportunity hearing committee that it is in compliance;

b. Withholding or delaying payment on the contractor or;

c. Suspending, avoiding or canceling contract work.

CERTIFICATION OF NON-SEGREGATED FACILITIES

The bidder certifies that he/she does not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she does not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. The bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid.

The bidder agrees that (except where he/she has obtained identical certification from proposed subcontractors/leased operators of equipment for specific time periods) he/she will obtain identical certification from proposed subcontractors/leased operators of equipment from the provisions of the Equal Opportunity clause, and that he/she will retain such certification in his/her files.

CONTRACTOR OR VENDOR WORKFORCE DATA FORM

BIDDERS NAME: _____

NUMBER OF ALL EMPLOYEES MUST BE ENTERED FOR EACH CATEGORY ---
(No Check Marks Or Bid Will Not Be Accepted)

	MALES					FEMALES				
ALL JOB CLASSIFICATIONS	**W**	**B**	**H**	**A**	**I**	**W**	**B**	**H**	**A**	**I**

W - WHITE B - BLACK H – HISPANIC A - ASIAN OR PACIFIC ISLANDER I - AMERICAN INDIAN

ILLINOIS DEPARTMENT OF HUMAN RIGHTS CERTIFICATION

Our Illinois Department of Human Rights Number is: _____

Must Provide Expiration Date: _____

CERTIFICATE OF NON-BARRED BIDDING

The undersigned certifies that it is not barred from bidding on this contract as a result of a conviction for the violation of State laws prohibiting bid rigging or bid rotating. The undersigned also certifies that current or prospective employees, contractors, and subcontractors/leased operators of equipment are not listed as Excluded Individuals/Entities with the US Government, as maintained by the US General Services Administration.

By signing below, the firm agrees that all information provided in the previous pages is accurate, and that if the firm below does not currently have a Department of Human Rights number they will apply for one within thirty days with the State of Illinois.

_____
Authorized Signature

_____
Title

_____
Firm

Our firm is a:

Minority Business Enterprise	____	City-Certified?	Yes	____	No	____
Women Business Enterprise	____	City Certified?	Yes	____	No	____
Neither	____					

(Revised 12/21/09)

Patcher Truck
Bid 413-PW-055

1.0 Purpose

It is the purpose of these specifications to describe (1) One Patcher Truck required by the City of Rockford. The patcher truck shall meet all 2010 engine emissions requirements.

2.0 General Requirements

2.1 Evaluation of Bid: Each bid shall be evaluated to determine whether the proposed product or service complies with the specifications detailed in this document. If this evaluation determines that a bid does not comply with the specifications set forth in this invitation to bid, then that bid shall be eliminated from consideration.

2.2 Evaluation Team: A team composed of staff from the Finance and Public Works departments shall evaluate each bid.

2.3 Evaluation Criteria: The evaluation team will evaluate bids based on total bid price and the ability of the bidder to comply with specifications.

2.4 Basis of Award: The City will award this contract to the lowest responsive and responsible bidder that is able to meet the requirements and criteria set forth in this document. A "responsive" bidder is able to provide a product or service that conforms in all material respects to the specifications detailed in this document. A "responsible" bidder is a corporation, company, or person who has the ability in all respects to provide the product or service desired at the highest possible standards of quality. A responsible bidder has the integrity and reliability to fully perform all contract requirements and assure good faith performance.

2.5 Questions: All questions regarding these specifications should be directed to Carrie Eklund, Central Services Manager, at (815)-987-5565 or carrie.eklund@rockfordil.gov.

2.6 Delivery Date: The successful bidder must deliver all trucks complete with all equipment specified in this document. All trucks and equipment must arrive to the ordering agency in good working order, within ninety (90) working days from the date of receipt of the purchase order issued by the agency. Exceptions from this delivery date must be listed in the bidder's response. Should circumstances arise during manufacture of the vehicles which affect the delivery date, the vendor shall contact the Equipment Services Supervisor to request a change in the delivery date. Changes will be approved at the discretion of the City of Rockford.

2.7 Liquidated Damages: Failure to deliver the completed vehicles within the time frame outlined in the vendor's bid response will result in the assessment of liquidated damages. Damages will accrue in the amount of $50 per business day beyond the delivery date. Damages will be deducted from payment issued by the City from the final invoice submitted for payment.

2.8 Manuals. A line setting sheet and manual(s) containing operating and servicing instructions for the equipment shall be provided with each unit. The manual(s) shall be as detailed as possible outlining all necessary operating and servicing instructions for the equipment, including its components. Necessary warnings and safety precautions shall be included. In addition, technical (shop) manual(s) containing illustrated parts lists and a complete set of technician repair manuals for the entire unit including wiring diagrams and hydraulic schematics

supplied with the equipment shall be provided. This can be supplied in paper manuals or in electronic format (on CD in Microsoft Word or PDF format).

2.9 Vendor's Warranty. At a minimum, the successful bidder shall provide a one-year "bumper-to-bumper" warranty for the **Bergkamp Flameless Pothole Patcher**. Wherever referenced in this section and on this document's Bid Form, "one-year" and "additional year" mean "12 months or 10,000 miles, whichever comes first." The bidder may propose an additional warranty beyond the minimum, provided said additional warranty is included at no charge to the City of Rockford.

2.10 Training. The selected vendor will be required to provide on-site training for City of Rockford employees on the use of the vehicles for no additional cost. Training will be scheduled upon mutual agreement of both parties.

2.11 Exceptions. Please list all exceptions.

3.0 Minimum Requirements

Base Chassis, Model 4400 SBA 4X2 with 193.00 Wheelbase, 125.90 CA, and 79.00 Axle to Frame.
TOW HOOK, FRONT (2) Frame Mounted
FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.375" x 3.705" x 0.438" (263.5mm x 94.1mm x 11.1mm); 456.0" (11582mm) Maximum OAL
BUMPER, FRONT Full Width, Aerodynamic, Steel; 0.142" Material Thickness
Includes:
BUMPER, FRONT Powder Coated Gray (Argent) Color
WHEELBASE RANGE 134" (340cm) Through and Including 197" (500cm)
AXLE, FRONT NON-DRIVING {Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity
SPRINGS, FRONT AUXILIARY Rubber
SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 12,000-lb Capacity; With Shock Absorbers
Includes:
SPRING PINS Rubber Bushings, Maintenance-Free
BRAKE SYSTEM, AIR Dual System for Straight Truck Applications
Includes:
BRAKE LINES Color and Size Coded Nylon
DRAIN VALVE Twist-Type
GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel
PARKING BRAKE VALVE For Truck
QUICK RELEASE VALVE Bendix On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4
SLACK ADJUSTERS, FRONT Automatic
SLACK ADJUSTERS, REAR Automatic
SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4
DRAIN VALVE {Berg} Manual; With Pull Chain, for Air Tank
Includes:
DRAIN VALVE Mounted in Wet Tank
AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)
AIR DRYER {Bendix AD-IP} With Heater
Includes:
AIR DRYER LOCATION Inside Left Rail, Back of Cab
BRAKE CHAMBERS, FRONT AXLE {Haldex} 20 SqIn
BRAKE CHAMBERS, REAR AXLE {Haldex GC3030LHDHO} 30/30 Spring Brake
Includes:
BRAKE CHAMBERS, SPRING (2) Rear Parking; WITH TRUCK BRAKES: All 4x2, 4x4; WITH TRACTOR BRAKES: All 4x2,

4x4; 6x4 & 6x6 with Rear Tandem Axles Less Than 46,000-lb. or GVWR Less Than 54,000lb.
BRAKES, FRONT, AIR CAM S-Cam; 16.5" x 5.0"; Includes 20 Sq. In. Long Stroke Brake Chambers
SLACK ADJUSTERS, FRONT {Haldex} Automatic
SLACK ADJUSTERS, REAR {Haldex} Automatic
BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring Actuated Parking Brake
AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM Capacity
AIR TANK LOCATION (2) Two mounted Outside Right Rail, Under cab, On step mounting brackets
STEERING COLUMN Tilting
STEERING WHEEL 2-Spoke, 18" Diam., Black
STEERING GEAR {Sheppard HD94} Power
EXHAUST SYSTEM Single, Horizontal, Aftertreatment Device Frame Mounted Outside Right Rail Under Cab; Includes Vertical Tail Pipe and Guard
Includes:
EXHAUST HEIGHT 10' Exhaust Height - Based on Empty Chassis with Standard Components (+ or - 1"Height)
MUFFLER/TAIL PIPE GUARD Non-Bright Finish
TAIL PIPE (1) Turnback Type, Non-Bright, for Single Exhaust
ELECTRICAL SYSTEM 12-Volt, Standard Equipment
Includes:
BATTERY BOX Steel
DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab
FUSES, ELECTRICAL SAE Blade-Type
HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever
HORN, ELECTRIC Single
JUMP START STUD Located on Positive Terminal of Outermost Battery
PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light
STARTER SWITCH Electric, Key Operated
STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector
TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature
TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted
WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever
WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted
WIRING, CHASSIS Color Coded and Continuously Numbered

CIGAR LIGHTER Includes Ash Cup

POWER SOURCE Cigar Type Receptacle without Plug and Cord

ALTERNATOR {Bosch LH160} Brush Type, 12 Volt 160 Amp. Capacity, Pad Mount

BODY BUILDER WIRING Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
BATTERY SYSTEM {International} Maintenance-Free, (2) 12-Volt 1850CCA Total
2-WAY RADIO Wiring Effects; Wiring With 20 Amp Fuse Protection, Includes Ignition Wire With 5 Amp Fuse, Wire Ends Heat Shrink and Routed to Center of Header Console in Cab
RADIO {International} AM/FM Stereo With Weatherband, Clock, Auxiliary Input, Includes Multiple Speakers Includes:
SPEAKERS IN CAB (2) Dual-Cone with Deluxe Interior
SPEAKERS IN CAB (4) Coaxial with Premium Interior
BACK-UP ALARM Electric, 102 dBA
AUXILIARY HARNESS 3.0' for Auxiliary Front Head Lights and Turn Signals for Front Plow Applications
STOP, TURN, TAIL & B/U LIGHTS {Truck Lite LED Multi-Function Lamp} Mounted Outside Rails

JUMP START STUD Remote Mounted

Includes:

JUMP START STUD Mounted to Battery Box

HORN, AIR Black, Single Trumpet, Air Solenoid Operated

BATTERY BOX Steel ,With Aluminum Cover,3 Battery Capacity, Mounted Right Side Under Cab Below Frame Mounted Exhaust, Provides a clean CA

CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade

ENGINE SHUTDOWN Automatic; With 30 Second Delay, With International Engines

HEADLIGHTS ON W/WIPERS Headlights Will Automatically Turn on if Windshield Wipers are turned on

STARTING MOTOR {Delco Remy 39MT} 12 Volt; Gear Reduced, With Thermal Over-Crank Protection

INDICATOR, LOW COOLANT LEVEL With Audible Alarm

HEADLIGHTS Halogen; Composite Aero Design for Two Light System

CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses

HOOD, HATCH (01) for Servicing

GRILLE Stationary, Chrome

FRONT END Tilting, Fiberglass, With Three Piece Construction

PAINT SCHEMATIC, PT-1 Single Color, Design 100

Includes:

PAINT SCHEMATIC ID LETTERS "GA"

PAINT TYPE Base Coat/Clear Coat, 1-2 Tone

KEYS - ALL ALIKE Fleet - Includes Ignition and Cab Door Keys

KEYS - ALL ALIKE, ID Z-250

CLUTCH Omit Item (Clutch & Control)

BLOCK HEATER, ENGINE {Phillips} 120 Volt/1250 Watt

Includes:

BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door

ENGINE, DIESEL {MaxxForce DT} EPA 10, 285 HP @ 2200 RPM, 860 lb-ft Torque @ 1300 RPM, 2400 RPM Governed Speed

Includes:

AIR COMPRESSOR AIR SUPPLY LINE Naturally-Aspirated (Air Brake Chassis Only) ANTI-FREEZE Red Shell Rotella Extended Life Coolant; -40 Degrees F/ -40 Degrees C; for MaxxForce Engines

COLD STARTING EQUIPMENT Intake Manifold Electric Grid Heater with Engine ECM Control

CRUISE CONTROL Electronic; Controls Integral to Steering Wheel

ENGINE OIL DRAIN PLUG Magnetic

ENGINE SHUTDOWN Electric, Key Operated

FUEL FILTER Included with Fuel/Water Separator

FUEL/WATER SEPARATOR Fuel/Water Separator and Fuel Filter in a Single Assembly; With Water-in-Fuel Sensor; Engine Mounted

GOVERNOR Electronic

OIL FILTER, ENGINE Spin-On Type

WET TYPE CYLINDER SLEEVES

FAN DRIVE {Horton Drivemaster} Direct Drive Type, Two Speed With Residual Torque Device for Disengaged Fan Speed

Includes:

FAN Nylon

RADIATOR Aluminum; 2-Row, Cross Flow, Over Under System, 1045 SqIn Louvered, with 373 SqIn CAC, with 369 SqIn LTR, with In-Tank Transmission Oil Cooler

Includes:

DEAERATION SYSTEM with Surge Tank
HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps
RADIATOR HOSES Premium, Rubber
FEDERAL EMISSIONS for 2010; MaxxForce DT Engines
AIR CLEANER With Service Protection Element
Includes:
GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted
THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel
ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls; With Ignition Switch Control for MaxxForce post 2007 Emissions Electronic Engines
FAN DRIVE SPECIAL EFFECTS Fan Cooling Ring with Fan Shroud Effects, Engine Mounted
EMISSION COMPLIANCE Federal, Does Not Comply With California Clean Air Idle Regulations
TRANSMISSION, AUTOMATIC {Allison 3500_RDS_P} 4th Generation Controls; Wide Ratio, 5-Speed, With Overdrive; On/Off Hwy; Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 80,000-lb GVW & GCW Max.
Includes:
OIL FILTER, TRANSMISSION Mounted on Transmission
TRANSMISSION OIL PAN Magnet in Oil Pan
TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission
TRANSMISSION OIL Synthetic; 29 thru 42 Pints
ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); General Purpose Trucks, Construction
TRANSMISSION TCM LOCATION Located Inside Cab
SHIFT CONTROL PARAMETERS Allison Performance Programming in Primary and Allison Economy Programming in Secondary
AXLE, REAR, SINGLE {Meritor RS-23-160} Single Reduction, 23,000-lb Capacity, 200 Wheel Ends, Driver Controlled Locking Differential . Gear Ratio: 6.14
SUSPENSION, RR, SPRING, SINGLE Vari-Rate; 23,500-lb Capacity, With 4500 lb Auxiliary Rubber Spring
AXLE, REAR, LUBE {EmGard 75W-90} Synthetic Oil; 30 thru 39.99 Pints
FUEL/WATER SEPARATOR With Thermostatic Fuel Temperature Controlled Electric Heater, and Filter Restriction/Change Indicator, Includes Standard Equipment Water-in-Fuel Sensor
FUEL TANK Top Draw; D Style, Non Polished Aluminum, 50 U.S. Gal., 189 L Capacity, 16" Tank Depth, With Quick Connect Outlet, Mounted Left Side, Under Cab
CAB Conventional
Includes:
ARM REST (2) Molded Plastic; One Each Door
CLEARANCE/MARKER LIGHTS (5) Flush Mounted
COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window
CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel
DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Console, Center Mounted
GLASS, ALL WINDOWS Tinted
GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side
GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side
INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color STEP (4) Two Steps Per Door
GAUGE CLUSTER English With English Electronic Speedometer
Includes:
GAUGE CLUSTER (5) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter
ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout
WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)
GAUGE, OIL TEMP, ALLISON TRAN
GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} With Black Bezel Mounted in Instrument Panel

IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
SEAT, DRIVER {National 2000} Air Suspension, High Back With Integral Headrest, Cloth, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, -3 to +14 Degree Back Angle Adjust
Includes:
SEAT BELT 3-Point, Lap and Shoulder Belt Type
SEAT, PASSENGER {Gra-Mag} Non Suspension, High Back, Fixed Back, Integral Headrest, Cloth
Includes:
SEAT BELT 3-Point, Lap and Shoulder Belt Type
MIRRORS (2) {Lang Mekra} Rectangular, 7.44" x 14.84" & 7.44" sq. Convex Both Sides, 102" Inside Spacing, Breakaway Type, Black Heads, Brackets & Arms
GRAB HANDLE Chrome; Towel Bar Type With Anti-Slip Rubber Inserts; for Cab Entry Mounted Left Side Only at "B" Pillar
CAB MOUNTING HEIGHT EFFECTS Mid Cab in Lieu of Low Cab Mounting Height (Approx. 4") for Increased Cooling System Requirements
Air conditioner (blend air) with integral Heater and Defroster
Includes:
HEATER HOSES Premium
HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps
INSTRUMENT PANEL Center Section, Ergonomic Panel
HVAC FRESH AIR FILTER
STORAGE POCKET, DOOR Molded Plastic, Full Width; Mounted on Passenger Door
CAB INTERIOR TRIM Deluxe
Includes:
"A" PILLAR COVER Molded Plastic
CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering
CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket
DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors
FLOOR COVERING Rubber, Black
HEADLINER Soft Padded Cloth
INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section
STORAGE POCKET, DOOR (1) Molded Plastic, Full-Length; Driver Door
SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console
LOW WASHER FLUID INDICATOR
CAB REAR SUSPENSION Air Bag Type
WHEELS, FRONT DISC; 22.5" Painted Steel, 2 Hand Hole, 10 Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs
Includes:
PAINT IDENTITY, FRONT WHEELS White
WHEELS, REAR DUAL DISC; 22.5" Painted Steel, 2 Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs
Includes:
PAINT IDENTITY, REAR WHEELS White
WHEEL SEALS, FRONT {International} Oil-Lubricated Wheel Bearings
PAINT IDENTITY, FRONT WHEELS {Accuride} Disc Front Wheels; With Vendor Applied (PKWHT21) White Powder Coat Paint
PAINT IDENTITY, REAR WHEELS {Accuride} Disc Rear Wheels; With Vendor Applied (PKWHT21) White Powder Coat Paint
WHEEL GUARDS, REAR {Accuride} for Metric Hub Piloted Wheels with Flanged Mounting Nuts, Mounted Between Hub & Wheel and Between Dual Wheels
WHEEL BEARING, FRONT, LUBE {EmGard 50W} Synthetic Oil
BDY INTG, REMOTE POWER MODULE Mounted inside Cab Behind the Driver's Seat; Up to 6 outputs & 6 inputs, Max 20

amp. Per channel, Max total 80 amp Total (Includes 1 switch pack with latched switches)

BDY INTG, PTO ACCOMODATION for electric over hydraulic PTO, Does Not Include Solenoids, With Latched Switch Mounted on Dash Includes Audible Alarm and Indicator Light in Gauge Cluster (requires 1 Remote Power Module input & 1 Output)

(2) TIRE, FRONT 11R22.5 HSL2 (CONTINENTAL) 500 rev/mile, load range G, 14 ply

(4) TIRE, REAR 11R22.5 HDR1 (CONTINENTAL) 495 rev/mile, load range H, 16 ply

Steel surcharge

4.0 BERGKAMP FP5 FLAMELSS POTHOLE PATCHER SPECIFICATIONS

4.1 CAPACITIES

Hopper	5.1 cu yards	3.9 cu.m.
	6 tons	5443 kg
Hydraulic Oil Reservoir	25 gal	94.63 l.
Cleaning Fluid Tank	15 gal	57 l.
Water Tank	15 gal	57 l.
Air Reservoir	19 gal	72 l.
Emulsion Tank	80 gal	303 l standard

4.2 STANDARD UNIT MEASUREMENTS

Width	8 ft	2.43 m
Length	16 ft 1 in	4.9 m
Height above Truck Frame	6 ft 5 in	1.96 m
Weight	7600 lbs.	3454 kg
Front Axle Capacity	12,000 lbs	5,443 kg
Rear Axle Capacity	23,000 lbs	10,433 kg
GVWR	35,000 lbs	15,876 kg

4.3 TRUCK REQUIREMENT

AIR COMPRESSOR (max. capacity)
AIR BRAKES
12 VOLT ELECTRICAL SYSTEMS, OPTIONAL 24 VOLT
TRANSMISSION= Preferred automatic Allison 3000RDS, 3500RDS, and 4000RDS
NOTE= If a standard transmission is specified and the truck needs to be moved while working, all hydraulic functions will be shut down when the clutch is depressed.
EXHAUST SYSTEM= Vertical preferred. Exhaust system must have clearance for mounting of PTO Gear Box with direct mount hydraulic pump on the right side of transmission.
CLEAR CAB TO AXLE= Minimum 126 inches (3.2 m).

4.4 HOPPER CONSTRUCTION

HOPPER= 50 degree steel sloped 3/16 thick inner side wall making up a triple wall construction, consisting of an inner wall, a 4 ½ inch air chamber, and a 3 inch insulated chamber. The air chamber is electrically heated and thermocouple temperature controlled. Vertical end walls and side walls are double wall construction filled with 2 inch of insulation.

HOPPER FRONT PLATFORM= The operators platform is located at the front of the hopper and constructed of 3/16

diamond tread plate built in to the two, three inch x six inch hopper main frame rail tubes and is constructed with a four inch front channel cross member, four inch tall side flanges and heavy duty reinforcement below. The large platform area measures 77 ½ inches (197cm) wide x 47 inches (119cm) front to back.
For ease of operation, the platform houses the emulsion tank, stacked hydraulic and air reservoir, water and cleaning fluid tanks, the 20 lb. propane tank, used for the heating torch, along with the main electrical control panel, still leaving room for the operator to move around freely.
An operator's step constructed of 3/16 diamond tread plate is located next to the emulsion tank to help with access viewing and filling the hopper and emulsion tank.
Passenger side platform ladder with two rungs made of dimpled tread grip for easy access on to the platform with two climb assist handles.

HOPPER DOORS= Doors are steel, double wall construction with a 2 inch insulated chamber, large hinge pins at each end and moisture drip flashing built into the edge of the two inner doors. Hydraulically operate by two 1 ½ x 10 inch stroke cylinders from the ground on the passenger side for opening and closing.
With doors opened it allows for a large opening for loading. 54 inches wide x 108 inches long.

TOOL/STORAGE BOX= Hopper full length lockable tool / storage box is located on the drives side of the hopper. Size is 22 inches (56cm) deep with a full length door opening 13 ½ inches (34cm) tall x 108 inches (274cm) long. The door is constructed of heavy gauge steel with a full length hinge and two lockable hand latches.

ASPHALT DISCHARGE= The asphalt is discharged from the rear of the hopper by means of an Auger, 6 inch diameter, 6 inch pitch, 3/8 inch thick flight, nested in the radius bottom of the hopper which runs the full length of the hopper. The auger is powered by a high torque hydraulic motor which is reversible when the job is complete and ready to move. By reversing the auger only one or two revolutions it allows the auger to move the asphalt at the discharge opening, back into the heated hopper so it stays warm.
A second hydraulic drive motor is offered as an option and is required. Along with this second hydraulic motor comes a manual selector valve. This valve allows you to run both motors at the same time to double the torque on the auger which allows you to run stiff material when cold. When this torque is doubled the auger speed is reduced by half. Once the stiff material starts to move, the valve can be shifted and the speed of the auger will return back to normal.

DISCHARGE CHUTE= Rotates left to right 140 degrees, 80 degrees to the left and 60 degrees to the right with a locking pin position every 15 degrees. The Chute can be used without locking pin.
The Chute pivots from a down operational position of 45 degrees and can be locked in positions at 30 degrees, 15 degrees and horizontal. Transport locks vertically up at 45 degrees

AGITATOR= A material agitator is located in the hopper directly above the auger and runs the full length of the hopper. This agitator is hydraulic driven and is controlled from the rear of the hopper at the operators control station. The agitator is only required to rotate when bridging of the asphalt occurs causing the discharge to slow down or stop. A couple of revolutions of the agitator are usually enough to break the bridge and allow material to flow again.

4.5 HYDRAULICS/PTO

SYSTEM= Hydraulic variable volume, pressure compensated, load sensing.

RESERVOIR= A steel 25 Gal. fabricated constructed tank, equipped with an oil level sight glass and breather type filler cap. In the lower side of the reservoir is the outlet fitting with a 2 inch NPT 100 mesh strainer that filters the hydraulic oil before entering the pump. A shutoff valve used for maintenance is attached to the strainer at the reservoir for the pumps suction line to attach.

HYDRAULIC OIL FILTER= Mounted in the return line of the system and is equipped with a disposable spin on 10 micron element and sight gauge which indicated when element needs to be changed.

MAIN HYDRAULIC PUMP= Mounted to a PTO Box, bolted to the truck's transmission is a variable volume; pressure compensated / load sensing axial piston pump. This pump is driven by the electric over hydraulic hot shift power take off box which is turned on and off by a switch in the cab of the truck with an automatic transmission. Trucks with a standard transmissions use a pull cable to turn the PTO driven pump on and off.

POWER TAKE OFF= When the truck is equipped with an Allison automatic transmission, a Chelsea model 277 wet spline PTO is used. The purpose for having a wet spline is that the hydraulic pump spline shaft that runs inside the PTO hollow spline shaft is lubricated with transmission fluid. This eliminates the need for removing the hydraulic pump from the PTO and having to grease the splines at the regular scheduled maintenance.
When a manual shift transmission is used Chelsea model 442 or 447 PTO is used. In most cases a pull cable control is used.

HYDRAULIC HOSES= All hydraulic hoses are rated at 3000 PSI working pressure.

HYDRAULIC CONTROL VALVE= A five spool valve is located at the front of the hopper on the passenger's side, which operates the doors at this location. The auger, agitator, auxiliary tools, and asphalt compactor platform all operate from the rear of the truck at the operator's station.

HYDRAULIC MOTORS= The Auger and Agitator are powered with their own hydraulic motors which by themselves develops 13,209 inch pounds of torque and generate 13.6 HP as required.

4.6 HEATING SYSTEM

HOPPER = The asphalt is kept hot with two immersion heaters that run the full length of the hopper that heat the air cavity on both sides of the hopper side walls. These are 220 volt single phase 4 kw triple element heaters.
220 volt AC electrical power is generated by a hydraulic driven generator mounted on the hopper and capable of producing 60 Hz, 10 kVA or 42 amps. When the truck is sitting idle and the asphalt is needed to be kept warm, a 25 foot power cord supplied can be plugged into a 220 volt single phase, minimum 40 amp outlet and attached to the bottom of the control panel on the hopper. A four prong male plug is required.
220 volt single phase control panel is mounted on the hopper and houses the 40 amp GFI main ground fault breaker for the system, the temperature controller, emulsion tank heater switch, amp meter, and voltage meter.
The temperature controller is used to regulate the hopper temperature which is sensed with a thermal coupler mounted in the front of the hopper.

4.7 MISCELLANEOUS

SPOILS BINS= Mounted at the rear of the Hopper is a heavy steel construction Spoils Bin with a hinged fill door that can be lowered for easy access for filling. The capacity is 0.51 cu. yd (0.39 C.M.). Its side gravity dump door is operated with a lever arm handle. Mounted on the passengers side of the Hopper is another Spoils Bin with a capacity of 0.47 cu. yd (0.36 C.M.) with a side gravity dump door, operated with a lever arm handle.

CLEANING FLUID SPRAY WAND= Mounted on the driver's side at the rear of the hopper is the cleaning fluid spray wand with enough hose to extend 24 foot. An optional spray wand is offered and stowed at the front of the hopper. The cleaning fluid is pumped by a 12 volt DC pump mounted under the Hopper front platform and is fed from the cleaning fluid 15 gallon tank mounted on the hopper platform. The cleaning fluid tank has a fluid level sight tube and a filter suction strainer mounted in the outlet port.

4.8 LIGHTS

LIGHTING = Mounted to the front of the hopper platform is a single 12 volt DC amber color Strobe Light
Standard equipment is a 10 light directional arrow board mounted at the rear of the hopper with control panel

mounted in the cab of the truck.
ALARM = A Backup alarm is standard equipment mounted at the rear of the truck.

4.9 OPTIONAL EQUIPMENT

SECOND AUGER MOTOR= Used to transfer the torque loads to both ends of the auger, reducing the stress in the auger. This Hydraulic Motor is the same Motor that comes as standard equipment located at the front of the hopper. The optional motor is direct mounted to the rear of the Hopper Auger and when operated in conjunction with the standard motor, the torque to the Auger is doubled which helps in breaking stiff asphalt loose.
A valve is installed at the rear of the Hopper that allows the operator to select between operating one or two motors. Once the asphalt is broke loose, the valve is pushed in so only one motor operates running at twice the speed then when both motors are running.

VIBRATORY PLATE / PAVEMENT BREAKER PLATFORM= The vibratory plate/ pavement breaker transport and storage platform is located at the rear of the hopper on the right hand side. The platform raises and lowers hydraulically with a 2 inch bore x 24 inch stroke cylinder controlled from the operator's station at the rear of the hopper. When raised with the packer in place it automatically locks the packer for transport. A light inside the cab of the truck remains on when the platform is not totally raised and unsafe to transport.
When a single drum roller packer is loaded, an additional transport lock bar is installed at the rear of the unit to eliminate bounce.
The pavement breaker is stored on the side of the platform which can be lowered for easy loading and unloading. The pavement breaker transport lock can be padlocked for security.

Bid Form
Bid: 413-PW-055

	Quantity	Unit Price	Total Price
Patcher Truck per specifications	1	$ _____	$ _____

_____
Person, Firm or Corporation

_____
Authorized Signature and Title