

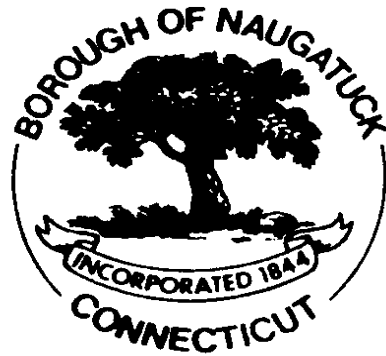
CONTRACT DOCUMENTS

Contract No.11-21

Automated Single Stream Recycling Truck

**PREPARED BY THE
BOROUGH OF NAUGATUCK
Department of Public Works**

October 2011



BOROUGH OF NAUGATUCK

INVITATION TO BID

Borough of Naugatuck

Sealed bids will be received and opened at the Borough of Naugatuck, Town Hall, Purchasing Office (located in the basement), 229 Church Street, Naugatuck, CT. 06770, on **Monday October 24, 2011 at 11:00 a.m.**, at which time and place all bids will be publicly opened and read aloud for supplying The Borough of Naugatuck with the following:

Contract # 11-21 **Automated Single Stream Recycling Truck**

Copies of the bid documents may be obtained at the Office of the Purchasing Agent upon submission of a non-refundable fee in the form of a check or money order payable to the Borough of Naugatuck in the amount of **\$50.00** per set. Bid documents can also be obtained at no cost from the Borough of Naugatuck web site <http://www.naugatuck-ct.gov>

All firms obtaining bid documents must submit contact information by e-mail to whozer@naugatuck-ct.gov and jstewart@naugauck-ct.gov. Contact information must be submitted three days in advance of the bid opening to be considered. No Bidder may withdraw his bid within (90) days after the actual date of the opening thereof.

The Borough of Naugatuck reserves the right to reject any and all bids.

An Affirmative action/Equal Opportunity Employer. Minority/Women's Business Enterprises are encouraged to apply.

60 - 1.4 - Equal opportunity clause.

(a) Government contracts. Except as otherwise provided, each contracting agency shall include the following equal opportunity clause contained in section 202 of the order in each of its Government contracts (and modifications thereof if not included in the original contract): During the performance of this contract, the contractor agrees as follows: (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) the contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Contract # 11-21
Automated Single Stream Recycling Truck

1. Item Description:

Purchase one (1) new and unused truck; model year 2012 or 2013, 37 cubic yard, Automated Arm on Right Side, Manual Load Option and Cart Tipper on Left Side, Right Hand Drive Single Stream Recycling Collection truck. Funding for this truck will be available after July 1, 2012, the Borough will not accept delivery before that date.

2. Specifications:

The contract for the Purchase of one (1) new and unused truck; model year 2012 or 2013, 37 cubic yard Automated Arm on Right Side, Manual Load Option and Cart Tipper on Left Side, Right Hand Drive Single Stream Recycling Collection truck will be entered into by the successful bidder and the Borough of Naugatuck. The specifications contained herein will detail the general requirements for the purchase. The truck must be compatible with Cascade brand any reference to specific models, dimensions, or equipment styles are intended for demonstration purposes and not intended to exclude bidders whose equipment has equivalent specifications. Vendors are encouraged to submit bids on all vehicles with features listed above. On site training for Borough of Naugatuck mechanics and drivers must be provided as part of the bid package.

3. Qualification of Bidders:

A Bidder shall be a Vendor who is experienced in the supply of equipment of this type. The Proposal shall contain adequate proof of the qualifications of the Bidder to perform, in a satisfactory manner the manufacture of an automated truck of this kind and warranty repair services. This proof shall be fully recorded on the pages titled "References", which shall become part of the Proposal

4. Disqualification of Bidders:

More than one proposal from an individual, firm, partnership, corporation, or an association under the same, or different, names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders; and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected no contract will be awarded except to competent Bidders capable of providing the equipment contemplated.

5. Preparation of Proposals:

The Proposal must be made upon the forms contained herein. The blank spaces in the Proposals must be filled in correctly where indicated. The Bidder must state, both in words and in numerals, written or printed in ink, the prices each item contemplated. In case of discrepancy between the words and the numerals, the words shall govern. Ditto marks are not considered writing, or printing, and shall not be used. The Bidder shall sign his Proposal correctly. If an individual makes the Proposal, his name and post office address must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address of the firm, partnership, or corporation.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, this address, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to:
Purchasing Office, Borough of Naugatuck, City Hall, 229 Church Street, Naugatuck, CT 06770.

6. Irregular Proposals:

The Borough of Naugatuck reserves the right to reject any proposals if they show any omission, alteration of form, additions not called for, conditional bids, or irregularities of any kind.

7. Withdrawal of Proposals:

If a Bidder wishes to withdraw his Proposal, he may do so before the time fixed for the opening of bids by communicating his purpose to the office of the Mayor. Upon such notice, the Proposal will be handed to him unopened.

8. Sales Tax:

The Borough of Naugatuck is exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Borough of Naugatuck will furnish the successful Bidder a sales tax exemption number.

9. Right to Reject:

The Borough of Naugatuck reserves the right to reject any or all proposals or to accept any bid, should it deem it to be in the best interest of the Borough of Naugatuck

10. Intent:

It is the intent of the Borough of Naugatuck to purchase one (1) new and unused 2012 or 2013, 37 cubic yard Automated, Right Hand Drive, Manual Load Option and Cart Tipper on Left Side, Single Stream Recycling Collection truck.

The specifications are for one (1) complete cab, chassis, body, and other equipment, as required. Accessories and/or other items not specifically mentioned herein but necessary to furnish a completed vehicle ready for operation shall also be included. Certain components may have been specified herein by a manufacturer's name, model, and/or dimensions or specifications in order to establish a minimum quality standard and to serve as a guide to the specifications when equivalent items are proposed for the Borough's consideration or approval. Allowance may be made in some cases, as is the Borough's prerogative, for any minor deviations from the specifications on such items where standards differ among manufacturers, in that said deviation does not limit or diminish the intended function and/or intent of the specifications.

11. Conformity:

The vehicle and all other equipment and components as described, shall meet all minimum specifications that follow. In order to be considered all bidders should be sure to check off each line with a "yes" or "no" response. All bidders shall indicate "yes" that his/her unit offered either exactly meets or exceeds these specifications, or "no" that it does not. If "no" is answered, indicate the exception on the page provided under offered. A full explanation of each exception should be included on an additional page on company letterhead. Failure to list all deviations or exceptions will lead to disqualification of bid proposal.

In cases where items or components are indicated by brand names, it is understood that bids will be accepted for consideration on any make or model that is equal to or exceeding the specifications for that item. The determination as to the equivalency of such items shall rest solely on the interpretation made by the Borough of Naugatuck.

Features which are regularly furnished, as standard with this unit shall be supplied by the successful bidder. The body and chassis shall conform in strength, quality of material, and workmanship to that provided by the best manufacturing and engineering practices of the Industry.

It is required that the unit, as specified herein, shall be completely assembled, painted, and ready for operation.

All inquiries shall be directed to:

**Mr. John Paige, General Foreman
510 Rubber Ave.
Naugatuck Public Works Department
Naugatuck, CT 06770
203-720-7070 (phone)
203-720-5680 (fax)**

SECTION B

PROPOSAL

Borough of Naugatuck

Contract No. 11-21- Automated Single Stream Recycling Truck

PROPOSAL FORM

The undersigned hereby agrees to furnish the Borough of Naugatuck with Contract No. - Automated Single Stream Recycling Truck, meeting the specifications and conditions of the Borough of Naugatuck, as stated in the bid documents.

The undersigned is aware that the Borough of Naugatuck may reject any and all bids in whole or in part; that the Borough may waive technical defects, irregularities and omissions; that the award will be based on the combination of items that will best serve the interest of the Borough; that the bid price does not include any taxes for which the Borough is not liable; and that acceptance of the bid will establish no exclusive contract by which the Borough of Naugatuck will be required to purchase from the undersigned.

The signed claims without reservation that his/her bid is made without collusion with any other person, individual or corporation.

1. Supply of new 2012 or 2013 37 cubic yard, Right Hand Drive, Automated Arm on Right Side, Manual Load Option and Cart Tipper on Left Side, Refuse & Recycling Collection truck as specified.

Price in Words _____

Price in Numbers \$ _____

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

PROPOSAL (Cont.)

Seal _____ Firm or Corporation _____
(if bid is by a Corporation)

By: _____
(Duly Authorized)

Signature _____

Street Address _____

City _____ State _____ Zip _____

Telephone _____

Fax _____

Date

Contract No. 11-21- Automated Single Stream Recycling Truck

Successful Chassis vendor shall complete manufacturing the chassis and deliver it to the successful body vendor within _____ Days of Award

Successful body vendor shall complete manufacturing and outfitting the body and deliver it to Borough within _____ Days of Award

Vehicle shall be supplied, road ready, to the Borough within _____ Days Of Award

Delivery Time and Liquidated Damage:

The above number of days shall be allowed for the delivery of the equipment. Liquidated damages will apply for each day delivery is not made at One Hundred Dollars (\$100.00) per calendar day.

NOTE: Funding for this truck will be available after July 1, 2012, the Borough will not accept delivery before that date.

Recommended Optional Equipment or Service- Not included but recommended by the supplier.

Price and Description of Optional Equipment or Service \$ _____

Extended Warranty Related Repairs:

In cases during the warranty period when the truck is at the vendor's repair facility for greater than 30 days (not necessarily consecutive) for the same warranty repair please indicate how the Borough will be compensated for the rental truck needed to replace the vehicle. _____

Contract No. 11-21- Automated Single Stream Recycling Truck

SECTION C

REFERENCES

The Bidder is required to fill out the following form to enable the Borough of Naugatuck to make inquiries and judge as to the Bidder's experience, product quality, skill, available financial resources, credit, and business standing.

1. Number of years the bidder has been in business: _____

2. List three (3) Vehicles of similar nature to the equipment described herein that the Bidder has completed, with name, address, and telephone number of a reference for each sale. Include approximate sale price:

4. Has the Bidder ever failed to deliver equipment as awarded; and if so, state to who and why:

5. Does the Bidder plan to sublet any part of the vehicle; and if so, give details:

Bidder

**BOROUGH OF NAUGATUCK, BID SPECIFICATION
FOR ONE AUTOMATED HELPING HAND, OR EQUIVALENT SINGLE STREAM
CAPACITY 37 CU.YD.**

YES NO OFFERED

1- Body capacity

The body has a rounded shape enhancing resistance to deformation, durability and better legal payload.

The body capacity, excluding the receiving hopper, is:	31	cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hopper has a capacity of:	4	cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The tailgate has a capacity of:	6	cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____

2- Body dimensions

Body is curved, taper and adapted to manual, semi-automated

and automated garbage collection.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Overall body length, including hopper and tailgate is:	337	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Overall body height above frame is:	101	in	<input type="checkbox"/>	<input type="checkbox"/>	_____

Overall body width is:	96	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body width at front is:	78	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body width at rear is:	89.125	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Width tapering is:	11.125	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body height at front is:	89	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body height at rear is:	93.125	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Height tapering is:	4.125	in	<input type="checkbox"/>	<input type="checkbox"/>	_____

3- Body floor construction

An abrasion resistant slope floor is taper and the slope angle is:	21	°	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor steel grade is:	Hardox 450		<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor thickness is:	1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____

Slope floor yield strength is:	175,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor wear plate steel grade is:	Hardox 500		<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor wear plate thickness is:	1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor wear plate yield strength is:	190,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body floor is curved avoiding material fall back on the hopper.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Floor abrasion resistant steel grade is:	A-572 GR50		<input type="checkbox"/>	<input type="checkbox"/>	_____
Body floor thickness is:	3/16	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body floor yield strength is:	50000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills are made from:	HSS TUBING		<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills dimensions is:	6X2X3/8	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills steel grade is:	A-500 C GRADE		<input type="checkbox"/>	<input type="checkbox"/>	_____

Long sills yield strength is:	50 000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Number of sills under floor is:	2		<input type="checkbox"/>	<input type="checkbox"/>	_____

4- Body side walls construction

The side walls is rounded improving resistance and featuring lightness.			<input type="checkbox"/>	<input type="checkbox"/>	
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Lower body side walls steel grade is:	A-715 GR 80		<input type="checkbox"/>	<input type="checkbox"/>	_____
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Lower body side walls thickness is:	10	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
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Lower body side walls yield strength is:	80 000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
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Upper body side walls steel grade is:	A-715 GR 80		<input type="checkbox"/>	<input type="checkbox"/>	_____
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Upper body side walls thickness is:	12	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
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Upper body side walls yield strength is:	80 000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
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The wall surface is a self rounded shape.			<input type="checkbox"/>	<input type="checkbox"/>	_____
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Upper wall design is rounded to improve the response to compression and bending stresses when body is full.

5- Body roof construction

Body roof is rounded and made of high yield steel ensuring strength when material is packing against it.

Roof structural channel steel grade is:

A-715 GR80

Roof thickness is:

12

ga

Roof yield strength is:

80 000

PSI

6- Hopper dimensions and construction

All surfaces exposed to abrasion in hopper are made of Hardox 450 steel or better for superior resistance to wear

A large hopper offers a volume of not less than:

4

cu. yd.

Hopper depth is:

18

in

Hopper width is:

72

in

Hopper length is:	60	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper height, at front, from bottom to canopy is:	105.5	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper height, at rear from bottom to canopy is:	107	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper floor steel grade is:	IPSCO AR200		<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper floor thickness is:	3/16	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper floor yield strength is:	70,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper floor wear plate steel grade is:	Hardox 500		<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper floor wear plate thickness is:	1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper floor wear plate yield strength is:	190,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Side abrasion resistant steel grade is:	IPSCO AR200		<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper side walls thickness is:	3/16		<input type="checkbox"/>	<input type="checkbox"/>	_____

Hopper side walls yield strength is:	70,000		<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper side walls wear plates steel grade is:	Hardox 450		<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper side walls wear plates thickness is:	3/16	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper side walls wear plates yield strength is:	175,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Mid-hopper tunnel steel grade is:	Hardox 450		<input type="checkbox"/>	<input type="checkbox"/>	_____
Mid-hopper tunnel thickness is:	1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Mid-hopper tunnel yield strength is:	175,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Two body windows of expanded metal are installed in front of body wall to indicate when body is full.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Body windows dimensions are:	8 X 8	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum loading height above chassis frame is:	5.5	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Canopy steel grade is:	A-569		<input type="checkbox"/>	<input type="checkbox"/>	_____

Canopy steel thickness is:	14	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body front wall lower section steel grade is:	A-572 GR50		<input type="checkbox"/>	<input type="checkbox"/>	_____
Steel thickness of body front wall lower section is:	3/16	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body front wall upper section steel grade is:	A-715 GR80		<input type="checkbox"/>	<input type="checkbox"/>	_____
Steel thickness of body front wall upper section is:	12	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper front wall steel grade is:	A-569		<input type="checkbox"/>	<input type="checkbox"/>	_____
Steel thickness of hopper front wall is:	14	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Right-hand side sump box capacity is:	8	gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Left-hand side sump box capacity is:	12	gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sump boxes doors dimensions are:	18 X 22.5	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sealed level above sump box floor is:	17	in	<input type="checkbox"/>	<input type="checkbox"/>	_____

Floating panels steel grade is:	IPSCO AR200		<input type="checkbox"/>	<input type="checkbox"/>	_____
Floating panels thickness is:	3/16	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Floating panels yield strength is:	70,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Floating panels dimensions are:	35 5/8 x 63 7/8	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Breaker bar steel grade is:	A-500 Grade C		<input type="checkbox"/>	<input type="checkbox"/>	_____
Breaker bar thickness is, with Retention Teeth on Breaker Bar	3/8	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Breaker bar yield strength is:	50,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Breaker bar dimensions are:	Ø6 x 71	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Length from packer face to breaker bar is:	40 5/8	in	<input type="checkbox"/>	<input type="checkbox"/>	_____

7- Hopper doors

Hopper loading area is completely enclosed with a right and left hand side doors.

Doors are held open or close with locks and wear pillow.

Left hopper door dimensions is:

71 X 73

in

Right hopper door dimension is:

71 X 73

in

Hopper door steel is:

A-569

Hopper door steel thickness is:

14

ga

Roll carts volume that the opening can accept is:

290

gal

8- Rear tailgate

The tailgate is hydraulically operated, bustle type complete with

automatic hydraulic lock mechanism, ensuring resistance when material is packing against it.

A safety pin is provided to hold the lock mechanism to prevent an accidental opening.

Tailgate steel grade is:

A-715 GR 80

Tailgate skin thickness is:	12	ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate yield strength is:	80 000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate hinge pin steel is:	Casting steel 8630		<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate hinge pin surface treatment is:	Melonite QPQ		<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate hinge pins diameter is:	1 1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
The number of cylinders operating the tailgate is:	2		<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate cylinder bore diameter is:	2 1/2	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate cylinder rod diameter is:	1 3/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate cylinder rod surface treatment is:	Chrome-plated		<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate cylinder stroke is:	39	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate cycle time at idle is:	39	sec	<input type="checkbox"/>	<input type="checkbox"/>	_____

Rubber seal is installed to prevent liquid leakage and banging on back of body, on whole width of the bottom and each side to an height of:

30

in

Manual control valve in cab is installed with safety lock to prevent accidental activation.

A light and audible alarm in cab is provided to indicate when tailgate is unlocked.

Tailgate safety prop is provided and assure an opening of:

24

in

Tailgate hydraulic line is equipped with flow restrictor to prevent sudden descent.

The tailgate opening angle is not less than (above horizontal):

45

°

Tailgate Length:

48

in

Tailgate top frame steel is:

IPSCO AR200

Tailgate top frame thickness is:

3/16

in

Tailgate bottom frame steel is:

50W

Tailgate bottom frame thickness is:

1/4

in

Tailgate side frame steel is: IPSCO AR200 _____

Tailgate side frame thickness is: 3/16 in _____

9- Packer

The packer is built so that packing area produce a pressure on garbage of: 60 PSI _____

The packer is guided by 2 rails on which wear plates are welded. _____

Rail wear plates steel grade is: Hardox 500 _____

Rail wear plates thickness is: 1/4 in _____

Rail wear plates yield strength is: 190,000 PSI _____

Rail dimensions are: 3 1/2 x 2 3/16 in _____

Packer underside wear shoes steel grade is: Hardox 450 _____

Packer underside wear shoes thickness is: 3/8 in _____

Packer underside wear plates yield strength is:	175,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer topside wear shoes steel grade is:	Hardox 450		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer topside wear shoes thickness is:	1/2	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer topside wear plates yield strength is:	175,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer Cylinders with Regeneration Valve for Faster Packing.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinders rod are:	Chrome-plated		<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder bore diameter is:	4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder rod diameter is:	2 1/2	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinders force is:	75 400	lbf	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer force on garbage(lbf) is:	67 400	lbf	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum compaction of refuse is:	850 lbs	/cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____

Cylinder stroke is:	40	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside width of packing ram is:	72	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside height of packing ram is:	18	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram stroke is:	52	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram top steel grade is:	IPSCO AR200		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram top thickness is:	1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram top yield strength is:	70,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing face plate steel grade is:	IPSCO AR200		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing face plate thickness is:	1/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing face plate yield strength is:	70,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram swept volume is:	1.44	cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____

Penetration of the ram into body is:	12	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer ram cycle time is:	12 sec @ 1200	RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
The packer is unitized, integral with body.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer is reinforced with a combination of structural members for maximum rigidity.			<input type="checkbox"/>	<input type="checkbox"/>	
The electric buttons drive an air actuator to power the packer hydraulic valve.			<input type="checkbox"/>	<input type="checkbox"/>	
Packer controls consist of start, retract, emergency stop and are located			<input type="checkbox"/>	<input type="checkbox"/>	
Left & Right side of the truck plus inside the Cab.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Emergency red button is provided to stop packer ram movement at any time.			<input type="checkbox"/>	<input type="checkbox"/>	
One complete set of packer control will be located on the L.H. side of Body. A Crusher Control will also be mounted on Left Side.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Control buttons are heavy duty, industrial type, color coded, corrosion proof and weather resistant.	1		<input type="checkbox"/>	<input type="checkbox"/>	
Packer length (including following panels) is:	55	in	<input type="checkbox"/>	<input type="checkbox"/>	_____

Packer control red button diameter is:	3	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer control others buttons diameter is:	1.5	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins steel is:	Casting steel 8630		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins surface treatment is:	Melonite QPQ		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins diameter is:	1 3/4	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins are easily greasable by sump doors.			<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel steel grade is:	IPSCO AR200		<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel thickness is:	3/16	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel yield strength is:	70,000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel dimensions are:	35 5/8 x 63 7/8	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Auxiliary arm controls:RH-side,in-side Right hand Door (Mini-joystick)			<input type="checkbox"/>	<input type="checkbox"/>	_____

10- Crusher panel

A crusher panel is installed on the front wall of the body to optimize the compaction of the material and to facilitate the transfer into the body.

Crusher panel steel grade is:

A-715 GR80

Crusher panel thickness is:

10

ga

Crusher panel yield strength is:

80 000

PSI

Crusher panel dimensions are:

51 x 46

in

Crusher panel is operated by 1 cylinder.

Crusher panel cylinder rod is:

Chrome-plated

Crusher panel cylinder bore diameter is:

2

in

Crusher panel cylinder rod diameter is:

1 1/2

in

Crusher panel cylinder stroke is:

14 1/2

in

Two rubber strips 6" wide is attached to crusher panel.

Hydraulic protection is supplied to prevent packing on top of the ram.

Crusher panel cylinder pins steel is:

Cold-roll Stress proof

Crusher panel cylinder pins surface treatment is:

Melonite PQP

Crusher panel cylinder pins diameter:

1

in

Crusher panel cycle time is:

5

sec

A Crusher Panel Control is to be mounted in the Cab and on the left and right sides of the truck.

11- Hydraulic system

The hydraulic system is designed to ensure easy maintenance.

The hydraulic pressure line is made up of a Denison relief valve

R5P: including vent valve VV01 with a 12 volts DC in line mounted solenoid which divert the flow back to tank when pump is not engaged, and a flow control which divert the excess flow back to tank over 45 gpm.

The standard dual vane pump deliver to arm :	16 gpm @ 700	RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
The standard dual vane pump deliver to other systems :	20 gpm @ 700	RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
ARM working pressure (Relief valve adjustment) is:	3000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
System working pressure (Relief valve adjustment) is:	3000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Reservoir capacity for conventional cab is:	65	gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Reservoir capacity for cab over is:	71	gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum quantity of oil in hydraulic reservoir for conventional cab is:			<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum quantity of oil in hydraulic saddle tank is:	57	gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic reservoir is equipped with magnetic drain plug, oil level sight gauge and shut-off valves in suction line and check valve on return.			<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter capacity is:	150	gpm	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nominal filtration rating is:	7	micron	<input type="checkbox"/>	<input type="checkbox"/>	_____

The suction line strainer capacity is:	100	gpm	<input type="checkbox"/>	<input type="checkbox"/>	_____
Suction line strainer size is:	100	mesh	<input type="checkbox"/>	<input type="checkbox"/>	_____
Beta filtration ratio per ISO 16889 is:	200		<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter is located in tank.			<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter have a derivation valve and a differential pressure indicator.			<input type="checkbox"/>	<input type="checkbox"/>	
The return line filter derivation valve cracking pressure is:	25	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Reservoir has an inspection and clean out cover.			<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic tank is pressurized for conventional cab.			<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic tank for cab over vent is:	10		<input type="checkbox"/>	<input type="checkbox"/>	_____
Fourth braided wire hoses are used on the pressure side and all other hoses are double braided wire; high burst capacity and reinforced with nylon wrap to prevent chafing.			<input type="checkbox"/>	<input type="checkbox"/>	
Hydraulic tubing is extensively used where flexibility is not needed.			<input type="checkbox"/>	<input type="checkbox"/>	

All pipes are zinc coated to prevent corrosion.

All hydraulic tubing is securely clamped to prevent vibration, abrasion and excessive noise.

All hydraulic hoses conform to S.A.E. standards for designed pressure.

Bends are not less than recommended by S.A.E. standards.

Hydraulic system operates at an acceptable temperature without the need for external hydraulic oil cooling devices.

Quick disconnect fittings are provided so that a pressure gauge

can be easily connected without the use of tools Hydraulic

Pressure Gauge Mounted on Main Valve

High flex hydraulic hoses are used at hinge point.

Hydraulic tank is baffled.

Hydraulic pump driving shaft is:

HD Spicer (1310)

12- Body lifting mechanism

The hoist cylinder is centrally front mounted with outer cover and bottom lifting for greater stability of the tipped body.

Body is raised by one single acting front mounted telescopic cylinders with:

5

sections

Telescopic cylinder rods surface treatment is:

Salt bath Nitriding

Cylinder stroke is:

204

in

Lifting capacity is:

99550

lbs

Body cylinder bore diameter is:

6 1/2

in

Body dump angle is:

46.5

°

Body lifting cycle time is:

70 sec @ 850

RPM

The air joystick with safety lock is installed in cab.

A light and audible alarm in cab is provided to indicate when body is raised and are activated until it is not completely down.

Safety prop is supplied to support the empty body in the raised position for safe maintenance.

13- Electrical system

Back - Up alarm is provided.

All stop, directional, tail, backup and clearance lights are "LED" Lights, recessed mount and watertight or equivalent.

Mid-body turn signals are standard equipment.

All lights are provided following CMVSS and FMVSS #108.

Rear lights are integrated in lower light box, with Additional Center

Center Brake Light.

Limit switches are heavy duty, industrial type, water tight with adjustable arm and over travel to prevent damage.

Wiring is color coded and numbered.

Circuit breakers are manually resettable in console.

Wiring conforms to:

SAEJ1128

Electrical splices are welded and covered with shrinking tube, in certain places, splices are set and covered with a shrinking tube with epoxy sealant.

Triple Work Lights with In Cab Switch

Front and Rear Amber Alternating Flashing Lights (4) 4" "LEDS"

Mid-Body Back-Up Lights also Mounted on Tailgate Total of (4) standard equipment.

14-Accessories

Steel mud guards are supplied in front of rear axle.

Rubber mud guards with chain are supplied behind rear axle.

If pump is front mounted, steel guard is fixed on the front bumper.

15- Painting

Most bolt-on parts are powder gray painted.

Body and hopper are steel gritblasted.

One coat (0,002") of urethane primer (DuPont) is applied.

The finish coat (0,002") of Red urethane paint is:

IMRON Elite (DuPont)

Rust protection is applied in body cavity.

16- Manuals

Parts, service and operator's manuals are supplied.

17- Lubrication

Lincoln Quicklube System , Shall be installed

Cylinder rod ends, cylinder base trunnions, tailgate hinges, and pivot points are to be supplied with grease fittings.

All packer grease fittings easily accessible.

A grease chart is supplied.

Parts kit to be with unit

18- Warranty

Length of warranty on parts and labor is not less than:

1

year

Length of warranty on body hydraulic cylinders, hoses and pump is not less than:

1

year

19- Certification

The body manufacturer is certified ISO 9001.

All internal inspection documents such as intermediate inspection booklets made at the body manufacturer are available and filed for every vehicle.

Manufacturer and welders are certified by the local Welding Bureau and conforms to the standards:

Welding procedure and materials are certified by the local Welding

Bureau and conforms to the standards:

20- Controls and button characteristics

Tailgate control is: Pneumatic _____

Tailgate control is equipped with safety lock. _____

Body lifting control is: Pneumatic _____

Body lifting control is equipped with safety lock. _____

Pump activation control is: Electric _____

Packer control is: Electric _____

Crusher panel is: Hydraulic _____

21- Noise level

Noise level at idle speed at 20' 72 dBA _____

Noise level at 1100 RPM at 20' 74 dBA _____

Noise level with packer activation at 20' 76 dBA _____

Noise level inside cab: must be put in by Chassis Manufacturer

dBA

22-Cart Lifting mechanism "Helping Hand Or Equivalent"

Long Reach Arm Extension (RH-side Only)

To lift 95 gallon, 65 gallon, 35 gallon "Cascade Carts"

Cart lifting mechanism is hydraulically operated and activated by a joystick in the cab and has Maximum reach of 10'

Arm to have a spill shield for over loaded carts mounted behind cart lifting mechanism.

Minimum bin size accepted by lifting mechanism is:

32

gal

Maximum bin size accepted by lifting mechanism is:

95

gal

Maximum lifting capacity at maximum reach is:

400

lbs

Vertical dump height is:

89

in

Maximum horizontal reach from side of vehicle is:

120

in

Minimum horizontal reach from side of vehicle is:	0	in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting mechanism cycle time at minimum reach is:	8	sec	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting mechanism cycle time at maximum reach is:	18	sec	<input type="checkbox"/>	<input type="checkbox"/>	_____
Unit weight without grab and oil but including valve is:	1 260	lbs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Flow to RH-side Arm from the flow control is:	20 gpm @ 700	RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum operating pressure is:	2 000	PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
The length of warranty on the automated arm and its cylinders is:	1	year	<input type="checkbox"/>	<input type="checkbox"/>	_____
Controls are to have Grab Pack & Multi Cycle Options			<input type="checkbox"/>	<input type="checkbox"/>	_____
Special Grippers are used to minimize the width of the "fingers" on the arm, an NSO 2010-4022, Part Number 85328 or equivalent			<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>23 Triple Camera Safety Vision with Color 6.8" LCD Monitor</u>					_____
Hopper, Back-Up, and Right Side Rail			<input type="checkbox"/>	<input type="checkbox"/>	_____

Includes Auto Switcher and Camera Heater

24 One Unit -On Board Digital Recording System

SV-4CSDSS-KIT / w/32 G SD Color Camera mount right side of Chassis Safety Vision or equivalent, spare memory card included.

25 Automatic Snow Chains

Chassis will be equipped with On Spot Automatic tire chains that will be mounted to work on the furthest rear drive axle.

**LEFT SIDE CYLINDER CART TIPPER
MODEL LE, LA ,LT, LXE, LXA, LXT or equivalent
SPECIFICATIONS STANDARDS**

26 Cart Tipper

YES NO OFFERED

Cart tipper shall be constructed from high quality steel :

Cart tipper shall be activated by cylinders :

Cart tipper cylinders shall be cushioned :

Cart tipper parts shall be bolted to ensure easy maintenance :

Cart tipper shall be equipped with brass bushings :

Cart tipper shall allow dumping of commercial containers without interference :

Cart tipper shall be able to dump 95 gallon, 65 gallon, and 35 gallon Cascade carts :

The lifting capacity shall be 350 pounds at 2000 psi :

Cart tipper cycle time shall be 10 seconds :

Cart tipper dump angle shall be 50 degrees :

Cart tipper maximum weight shall be 186 pounds :

Cart tipper warranty shall be 1 year on part and labor :

Left side cart lifter, comes with left side Controls

27 Drop Frame Option With Large Saddle Fuel Tank

Initial frame shall be made of high strength steel.

Section Modulus of the initial frame shall be 29.84 cu.in.

Resistant Bending Moment (RBM) of the initial frame shall be 3 580 800 lbf.in.

Yield Strength of the initial frame shall be 120 000 psi.

Drop frame shall be made by Labrie or Equivalent to that style to allow for cart lifter and manual loading from left hand side.

Parts welded to the initial frame to from the drop shall be made from steel 50W.

With the set up of the drop frame, RBM and section Modulus exceeds the ones of the initial frame exceeds the ones of the initial frame.

Minimum of 5 cross-members are required (excluding suspension cross-members).

Driveshaft length will be modified after the drop after the drop and alignment will be done per Transmission specifications.

If the wheelbase is to be modified, our standard is to use Huck Bolts for the suspension brackets on the frame.

Warranty for Dropped Frame

3

years

28 DISTRIBUTOR

Prefer full service within 20 miles of the Borough of Naugatuck with an adequate stock of parts, and factory trained mechanics for proper repairs. And be able to be inspected if so requested.

29 OPTION

Additional 1 year warranty - Body & Hydraulics - total 2 years (Indicate price if offered)

Automated Refuse and Recycling Truck Bid – Chassis Specifications

Low Entry Left Hand and Right Hand Sit Down with Right Hand Side Driving Position Drop Frame Configuration to Accommodate Refuse Body with Manual Load Option and Cart Lifter on Left Hand as Specified.

Engine must comply and be certified for 2010 EPA Emission Standards. The use of Selective Catalytic Reduction (SCR) Technology shall be used. NOx 0.2 g/bph-hr. Diesel Exhaust Fluid (DEF) Tank and Particulate Filter (DPF) Technology. (There is No Exception to this Item)

Bidders Must Meet or Exceed the Minimum Specification

	<u>Comply</u>	
	<u>YES</u>	<u>NO</u>
2012 or 2013 Model Year		
<u>Engine:</u> (No Deviations to the Minimum Specifications)		
Must Meet 2010 Federal Emission Standards (No Exception). The Engine shall be an In-Line Six (6) Cylinder, Variable Geometry Turbo -Charged Diesel with Replaceable Sleeved Cylinder Liners. 11 Liter Minimum. Extended Service Intervals	_____	_____

Minimum 345 HP. Peak Horsepower at 1500-1700 RPM	_____	_____

Exhaust, DPF, Outboard, single Right Hand Side Vertical Straight Exhaust Stack With Plain End Perforated Diffuser. Also, Regeneration Control, Manual Init & Inhibit (In Motion or Stationary)	_____	_____

Electronic Modules to monitor Fuel Timing, Coolant Temp., Coolant Levels And Oil Pressure.	_____	_____

Single Poly “V” Belt with Automatic Tensioner	_____	_____

Electric Engine Modules Shall Monitor Engine Components and a separate Cab control module shall be mounted inside Cab.	_____	_____

Peak Torque shall not be less than 1,280 Ft.lbs.	_____	_____

Behr-Fan + Drive	_____	_____
Exhaust shall be Vertical Muffler and Tail pipe	_____	_____
Engine Compression Brake	_____	_____
Gear Driven Air Compressor 18.7 CFM Minimum	_____	_____
120 Volt Plug in Engine Block Heater	_____	_____
13" External Air Cleaner with intake inline pre-cleaner	_____	_____
-40 Degree Anti-Freeze Coolant	_____	_____
Silicone Hoses with spring Loaded Clamps for both Radiator and Heated	_____	_____
Alternator shall be 130 Amp Minimum	_____	_____
Engine Continued:		
(3) 12 Volt M/F Batteries 3000 CCA	_____	_____
Electronic Engine Shutdown System to monitor high coolant temp., Low coolant Level, Low Oil Pressure with manual override	_____	_____
Starter 12 Volt 42MT 450 Electric	_____	_____
Front Crankshaft Adapter 1350 Flange for P.T.O	_____	_____
Refuse Service		
Electric Pre-Heater Starting Aid	_____	_____
Davco Fuel Heater and Separator	_____	_____
Fly wheel housing shall be aluminum	_____	_____
All hoses heater and coolant hoses shall be constant torqueclamps with Shut off valve. Spring Loaded Clamps.	_____	_____
Furnish for Radiator, Oil, Power Steering, Transmission Dips sticks And caps to be chained.	_____	_____

	YES	NO
Coolant Conditioner Filter with Extended Life Coolant Protection With Nitrites 50/50 Mix - 34 Degrees	_____	_____
Engine Oil Fill Dip Stick to read 4 Quarts Low between add and Fill Marks.	_____	_____
Starter Re engagement protection while Engine is running.	_____	_____
Tether Device, Plastic Coated Cable, and Mounted Front of each battery box length to allow cover to set on ground	_____	_____

Specify Engine Make and Model:

Transmission:

Allison Automatic HD-4560P 5- Speed	_____	_____
Transmission Cooler and External Filter	_____	_____
Transmission Oil Temp. Gauge	_____	_____
Must be equipped with Neutral-To-Range Inhibit Switch to prevent Engagement at high RPM. . (Factory Installed No Exceptions)	_____	_____
Oil Resistant Transmission Mounts	_____	_____
Synthetic Lubricant Transynd	_____	_____

Drive Shafts:

Main Drive Shaft to be Spicer18N with Coated Splines	_____	_____
Inter Axle to be Spicer 17N coated Splines	_____	_____

Cab:

Welded Steel Cab

	YES	NO
Low Entry	_____	_____
74.5 inch Tall Door opening on Right Side	_____	_____
Cab Over Tilt Tab with Pump Mounted on RH. Fender	_____	_____
Right Hand Sit Down and Drive Position and Left Hand Side Sit Down	_____	_____
17 inch integral Entry Both Sides	_____	_____
T.M.C recommended instrument panel with at least 9 but not limited to the Following.	_____	_____
Air pressure gauge	_____	_____
Volt Meter	_____	_____
Engine Coolant Temp. Gauge	_____	_____
Engine Oil Pressure	_____	_____
Fuel Level Gauge	_____	_____
Speed Odometer	_____	_____
Tachometer	_____	_____
Hour Meter	_____	_____
Transmission Oil Temp. Gauge	_____	_____
Low Oil Pressure Buzzer	_____	_____
Parking Brake "On" Indicator	_____	_____
Electronic Throttle Control	_____	_____
Directional Signal with Flasher	_____	_____
Exterior Grab Handles Stainless Steel RH and LH Behind Door	_____	_____

AM/FM CD Radio with speakers	_____	_____
Front Hinge Door Locking Latch in the open position	_____	_____

YES	NO
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Cab Continued:

Emergency Kill Switch in Cab Accessible from outside Cab R.H. Side	_____	_____
--	-------	-------

Dual City electric horns	_____	_____
--------------------------	-------	-------

Motorized Heated Mirrors Left Hand and Right Side Bright Finish Stainless	_____	_____
---	-------	-------

8.0 Convex Mirrors Bright Finish mounted on the Lower Brackets	_____	_____
--	-------	-------

Proximity Mirrors Rectangular Convex above RH & LH Door	_____	_____
---	-------	-------

Driver's seat Bostrom Fixed with Air Adjustable Mid Back Talladega and Black Cloth Covering	_____	_____
---	-------	-------

Interior Sun Visors both sides	_____	_____
--------------------------------	-------	-------

Windshield Wipers shall be intermittent and protective cover for washer bottle and pump	_____	_____
---	-------	-------

Each wiper motor shall be easily accessible from the exterior front area of the cab.	_____	_____
--	-------	-------

Rear Cab Window	_____	_____
-----------------	-------	-------

Seat Belts Height Adjustable Type.	_____	_____
------------------------------------	-------	-------

Storage Compartment on center console	_____	_____
---------------------------------------	-------	-------

C-B Posts	_____	_____
-----------	-------	-------

Dual Roof Mounted Air Vents	_____	_____
-----------------------------	-------	-------

Radio Auto Shut-Off when Transmission is shifted in Reverse	_____	_____
---	-------	-------

LED Cab Marker and Clearance Lamps	_____	_____
------------------------------------	-------	-------

Dual Roof Vents on top of Cab for Ventilation	_____	_____
---	-------	-------

YES **NO**

Dimensions:

246" Wheelbase	_____	_____
322" Platform	_____	_____
67" Bumper to Back of Cab	_____	_____
Stationary Front Grill Steel (No Plastic Grills)	_____	_____
Skid Plate under Bumper and Radiator	_____	_____
Flush mounted steel bumper	_____	_____
Right Hand Frame Rail Clearance	_____	_____

Frame:

Heat Treated Steel, 110,000-PSI Yield Strength	_____	_____
R.B.M 2,818,000 in. lbs. per rail	_____	_____
Frame shall have a drop or deep belly section behind Cab	_____	_____
1/4" "C" Steel Channel Reinforcement	_____	_____
3 piece Swept Back steel Bumper	_____	_____
Cross-members steel 1/2" Bolted back of Cab and Intermediates, Below Rail	_____	_____
Fender Mounted Front Mud Flaps 12"	_____	_____

DROP FRAME Configuration to Accommodate Body Specified _____

Front Axle:

Minimum 20,000 lbs. Minimum	_____	_____
-----------------------------	-------	-------

Completely sealed tapered Kingpins	_____	_____
Forged Heat Treated I- Beam construction with dropped center section	_____	_____
Front Suspension 20,000 lbs. Minimum	_____	_____
Heavy Duty Front Shocks	_____	_____
Shepherd Power Steering M100 plus R.H. Assist Cylinder	_____	_____
Steel Disc Hub Piloted Rims 22 X 9.0	_____	_____
Tires Front 315/80R22.5 20 ply M860	_____	_____
Stemco Oil Wheel Seals	_____	_____
Dust Shields with Inspection Whole	_____	_____
Static Load Cushions	_____	_____
 Rear Axle:		
46,000 lbs. Minimum Refuse approved Cast Housings	_____	_____
46,000 lbs. Mult Leaf Suspension No Parabolic Type Springs	_____	_____
Transverse Torque Rod on Rear Carrier	_____	_____
Carrier Torque Rods	_____	_____
Bogie spacing 50"	_____	_____
Bronze Trunion Bushings	_____	_____
Double Reduction Gearing (No Exceptions)	_____	_____
Rear Wheels shall be 10 Hole Hub Piloted 22.5 x 9.0	_____	_____
Tires shall be 315/80 R 22.5 16 Ply M860	_____	_____
Rear Brakes 16.5 x 8.0 to include Cam Bushing	_____	_____
Four (4) Double diaphragm spring chambers, two on each side	_____	_____

	YES	NO
Axle Ratio 5.90	_____	_____
Shock Insulators Urethane	_____	_____
Brake Chambers 30/36 Type-MGM	_____	_____
Anti-Sway Springs	_____	_____
Heavy Duty Shock Insulators Urethane	_____	_____
Synthetic Lube 75W-90	_____	_____

Bidder Specify Rear Axle Make and Model _____

Fuel Tanks:

Aluminum Tank minimum 70 gallon LH Side 24" Round with 4" Filler Neck Screens	_____	_____
Locate Fuel Tank behind Cab Left Hand Fender 5" below Top of rail	_____	_____
Fuel Line Fire Resistant	_____	_____

Air / Brakes Accessories:

Full Air Brakes with Anti-Lock Features	_____	_____
Wabco Heated Air Dryer 1800	_____	_____
Automatic moisture ejectors heated	_____	_____
Manual Drain Valves	_____	_____

Air Reservoirs mounted inboard and under frame rail forward of Rear Axle and between frame rails	_____	_____
Front Brakes 16.5" X 6" Q Style Minimum	_____	_____
Rear Brakes 16.5" X 8" Q Plus Style Heavy Duty Minimum	_____	_____
Work Brake centrally located	_____	_____
Haldex Automatic Slack Adjusters front and rear axle	_____	_____
High Mount Rear Brake Chambers	_____	_____
Air Line Nylon with Flex Lines	_____	_____
High Mounted Air Line for additional ground clearance	_____	_____
Meritor /Wabco ABS Anti-Lock Brakes with Traction Control	_____	_____

Electrical:

Battery Disconnect Flaming River industries "Big Switch" Mounted on or Near Battery Box	_____	_____
12 Volt System negative ground with automatic circuit breakers	_____	_____
Heavy Duty Power Cable	_____	_____
A cable shall be provided to a junction box at the rear of the frame for the Body Company to access their lights, this cable should be wired to the dash Circuits.	_____	_____
Provisions for local installation of strobe lights	_____	_____
Glyptal Coated Electrical Connections	_____	_____
Battery Switch warning Light near battery Box	_____	_____
Battery Box Steel with locking tab	_____	_____
Battery Switch Warning Light on or near battery Box	_____	_____

YES

NO

Computer and Two Way Radio Dedicated Circuit

Electrical Continued:

Cab Identification and Clearance Lights shall be LED type

Paint:

Cab shall be painted with two parts Urethane based paint per Customer Specifications. Red, Clear Coat

Chassis: Shall be Urethane Black

Body Paint shall match Cab

P.T.O / Special Equipment

Crankshaft Adapter Front End Model 1350 Series Flange

Pump should not extend past the Bumper

Warranty:

Transmission Allison ETC 5 Years 100% Parts and Labor

Rear Axle 5 Years /500,000 Miles 100% Parts and Labor

Engine 5 Years / 250,000 Miles 100% Parts and Labor

12 months or 25,000 miles towing on Chassis related issues

In Addition:

60 Months / 500,000 Miles on Major Components

Block Stiffener, Camshaft Forging, Camshaft Caps and Bolts, Connecting Rod and Cap Forging, Coolant Pump Housing, Crankshaft Forging, Cylinder Block Castings, Cylinder Head Casting and Bolts, Engine Gears (Rear Mounted) Exhaust Manifold Casting, Flywheel Housing, Intake Manifold Casting, Main Bearing Bolts and Caps, Oil Pump Drive and Driven Gears, Timing Gear Covers and Mounting Plate.

Frame Rails and Cross members: 36 Months/300,000 Miles.

Cab Structure: 24 Months

Cab Corrosion: 60 Months

Axles: Rear Carriers and Housings and front I Beam 36 Months

Trunion Bracket & Spindle, Suspension Trunion
(Except Bushings) 36 Months

Attach warranty information for coverage on items
