

## **AGREEMENT**

**THIS AGREEMENT** is made and entered into by and between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the “City” or “Customer”) and **COLORADO KENWORTH, INC.**, a Colorado corporation whose address is 852 S. Jason St., Denver CO 80223 (“Contractor”).

### **RECITALS:**

1. The City desires to obtain one Kenworth K270 Loadmaster Elite Rear Loader Refuse Truck and associated equipment, and Contractor desires to provide that equipment to the City.
2. Payment for the equipment shall be financed through a separate lease-purchase agreement (the “LPA”) between the City and Chase Equipment Finance, Inc., (“Financer”).

### **AGREEMENT:**

For and in consideration of the agreements contained, and subject to the terms and conditions stated, in this Agreement, the parties agree as follows:

1. **FORM OF AGREEMENT**. This Agreement shall consist of the terms and conditions stated in the following numbered Articles, together with those exhibits or attachments that are referenced and incorporated in such Articles. In the event that any conflict between the terms and conditions contained in this document and those contained in any exhibits or attachments shall occur, the terms and conditions of these numbered Articles shall be controlling.

2. **COORDINATION AND LIAISON**: Contractor agrees that during the term of this Agreement it shall fully coordinate the performance of this Agreement with the City, including the Manager of Public Works (“Manager”) or as otherwise directed by the City. Contractor understands that the Manager or designee is the City's representative or Project Manager under this Agreement through whom Contractor obligations performed under this Agreement shall be coordinated.

3. **EQUIPMENT AND WARRANTIES TO BE PROVIDED**.

A. Contractor shall provide to the City the equipment and warranties listed and described on **Exhibit A** attached hereto (hereinafter referred to as the “Equipment” and “Warranties”).

B. It is understood and agreed that the Equipment and Warranties associated with this Agreement that are being provided to the City hereunder are also routinely provided to nongovernmental customers on the same terms and conditions that were offered to the City and are agreed to by the City in this Agreement.

4. **SPECIAL PURCHASING TERMS AND CONDITIONS**: In addition to all other terms and conditions stated in this Agreement, Contractor shall comply with the following special purchasing terms and conditions:

A. Pricing is F.O.B. Denver, CO, delivered to the City facilities as set out on Exhibit A.

B. Contractor agrees to bear all risk of loss, injury, or destruction of goods and materials ordered as a result of this Agreement which occur prior to delivery to the City; and such loss, injury or destruction shall not release Contractor from any obligation hereunder. Thereafter, risk of loss shall pass to the City and Financer as further described in the LPA.

C. Contractor agrees to furnish, upon the written request of the City, any additional information needed to substantiate or clarify the design and/or performance characteristics of the Equipment.

D. Contractor Invoices must include the following:

- (1) City contract control number.
- (2) Items listed individually.
- (3) Invoice number and date.
- (4) Requesting department name and "ship to" address.
- (5) Payment terms.

5. **TERM.** The Term of this Agreement shall commence upon January 1, 2014, and expire on December 31, 2015.

6. **COMPENSATION.**

A. It is understood and agreed that the City has elected to lease/purchase/finance the Equipment and Warranties through the LPA. The City and Financer have also entered into an escrow agreement that together with the LPA provide for payment to the Contractor of the maximum amount stated herein subject to the procedure set out in the LPA. The Contractor's performance under this Agreement is expressly conditioned upon funding of the escrow agreement and proper payment as set out herein.

B. The total compensation payable to Contractor for acquiring and delivering the Equipment together with the Warranties shall not exceed the amount of **ONE HUNDRED SIXTEEN THOUSAND SIX HUNDRED AND SIXTEEN DOLLARS AND NINETY CENTS (\$116,616.90)** (the "Maximum Purchase Amount"), payable directly to the Contractor by Financer. Title to the Equipment shall vest with Financer upon payment of the Maximum Purchase Amount to Contractor. Beneficial use of the Equipment and Warranties shall remain with the City.

C. The total compensation payable by the City to Contractor under this Agreement for the Equipment and Warranties shall not exceed Zero Dollars (\$0.00) (the "Maximum Contract Amount").

D. The total obligation of the City hereunder shall be limited to funds appropriated for the purposes of this Agreement by the Council of the City and County of Denver, paid into the Treasury of the City and encumbered for the purpose of this Agreement.

7. **TIME IS OF THE ESSENCE:** The parties agree that in the performance of the terms, conditions, and requirements of this Agreement by Contractor, time is of the essence.

8. **STATUS OF CONTRACTOR**: It is understood and agreed by and between the parties that the status of Contractor shall be that of an independent contractor and it is not intended, nor shall it be construed, that Contractor or any employee or subconsultant is an employee, officer, or agent of the City under Chapter 18 of the Denver Revised Municipal Code for purposes of unemployment compensation, workers' compensation, or for any purpose whatsoever.

9. **TERMINATION OF AGREEMENT**: The City may terminate this Agreement at any time on thirty (30) days' notice if Contractor is in breach or default of the Agreement or if the underlying project or activity is canceled. The City may also by written Notice of Default to Contractor terminate the whole or part of this Agreement in the event Contractor or any of its officers or employees are convicted, plead nolo contendere, enter into a formal agreement in which they admit guilt, enter a plea of guilty, or otherwise admit culpability to criminal offenses of bribery, kickbacks, collusive bidding, bid-rigging, antitrust, fraud, undue influence, theft, racketeering, extortion or any offense of a similar nature, in connection with Contractor's business. Contractor may terminate this Agreement upon ten (10) days prior written notice if (a) the City breaches this Agreement and the breach remains uncured for thirty (30) days after receipt of written notice of the breach, or (b) Financer fails to honor its obligations under the LPA.

10. **WHEN RIGHTS AND REMEDIES NOT WAIVED**: In no event shall any payment by the City hereunder constitute or be construed to be a waiver by the City of any breach of term, covenant, or condition or any default which may then exist on the part of Contractor, and the making of any such payment when any such breach or default shall exist shall not impair or prejudice any right or remedy available to the City with respect to such breach or default; and no assent, expressed or implied, to any breach of any one or more terms, covenants, or conditions of the Agreement shall be construed as a waiver of any succeeding or other breach.

11. **EXAMINATION OF RECORDS**: Contractor agrees that any duly authorized representative of the City, including the City Auditor or his representative, shall, until the expiration of three (3) years after the final payment under this Agreement, have access to and the right to examine any directly pertinent books, documents, papers and records of Contractor, involving transactions related to this Agreement.

12. **TAXES, PERMITS AND LICENSES**: Contractor agrees to pay promptly all taxes, excises, license fees and permit fees of whatever nature applicable to its operations, and to take out and keep current all required licenses or permits, whether municipal, state or federal, required for the conduct of its business hereunder, and further agrees not to permit any of said taxes, excises or license or permit fees to become delinquent. Contractor further agrees to furnish the City, upon request, duplicate receipts or other satisfactory evidence showing the prompt payment by Contractor of all required licenses and permits and all taxes. Contractor further agrees to pay promptly when due all bills, debts and obligations incurred by it in connection with its operations, and not to permit the same to become delinquent and to suffer no lien, mortgage, judgment or execution to be filed which will in any way impair the rights of the City under this Agreement.

13. **VENUE, GOVERNING LAW**: Each and every term, condition, or covenant herein is subject to and shall be construed in accordance with the provisions of Colorado law, any applicable federal law, the Charter of the City and County of Denver and the ordinances, regulations, and Executive Orders enacted and/or promulgated pursuant thereto. Such applicable law, together with the Charter, Revised Municipal Code, regulations and Executive Orders of the City and County of Denver, as the same may be amended from time to time, is hereby expressly

incorporated into this Agreement as if fully set out herein by this reference. Venue for any action arising hereunder shall be in the Denver County or Denver District Court in the City and County of Denver, Colorado.

14. **USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS:** Contractor, its officers, agents, and employees shall cooperate and comply with the provisions of Executive Order 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in the City's barring Contractor from City facilities or participating in City operations.

15. **ASSIGNMENT AND SUBCONTRACTING:**

A. Provided that the City shall have accepted the Equipment, the City shall not have the right to and shall not assert against any assignee of Financer or other registered owner of the Equipment any claim, counterclaim or other right the City may have against the Contractor.

B. None of the City's right, title and interest in any portion of the Equipment may be assigned or encumbered by the City for any reason; except that the City may sublease all or part of such Equipment if (a) such sublease is to an agency or department of, or a political subdivision of, the State or (b) the City obtains the prior written consent of Financer and an opinion of nationally recognized counsel in the area of tax exempt municipal obligations satisfactory to Financer that such subleasing will not adversely affect the exclusion of the interest components of the rental payments made to Financer under the lease-purchase transaction referenced herein from gross income for federal income purposes. Any such sublease of all or part of any Equipment shall be subject to the lease-purchase transaction with Financer and the rights of Financer in, to and under such transaction with respect to the Equipment.

C. The City is otherwise not obligated or liable under this Agreement to any party other than the Contractor named herein. Contractor understands and agrees that it shall not assign or subcontract with respect to any of its rights, benefits, obligations or duties under this Agreement except upon prior written consent and approval of the City, which consent or approval may be withheld in the absolute discretion of the City; and in the event any such assignment or subcontracting shall occur, such action shall not be construed to create any contractual relationship between the City and such assignee or subcontractor, and Contractor herein named shall remain fully responsible to the City according to the terms of this Agreement.

16. **NO DISCRIMINATION IN EMPLOYMENT:** In connection with the performance of work under this Agreement, Contractor agrees not to refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability; and Contractor further agrees to insert the foregoing provision in all subcontracts hereunder.

17. **INSURANCE:**

A. **General Conditions:** Contractor agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Contractor shall keep the required insurance coverage in force at all times during the term of the Agreement, or any extension thereof, during any warranty period, and for three (3) years after termination of the Agreement. The required

insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as “A-”VIII or better. Each policy shall contain a valid provision or endorsement requiring notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, contractor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City’s contract number. If any policy is in excess of a deductible or self-insured retention, the City must be notified by the Contractor. Contractor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Contractor. The Contractor shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

**B. Proof of Insurance:** Contractor shall provide a copy of this Agreement to its insurance agent or broker. Contractor may not commence services or work relating to the Agreement prior to placement of coverage. Contractor certifies that the certificate of insurance attached as Exhibit B, preferably an ACORD certificate, complies with all insurance requirements of this Agreement. The City requests that the City’s contract number be referenced on the Certificate. The City’s acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Contractor’s breach of this Agreement or of any of the City’s rights or remedies under this Agreement. The City’s Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.

**C. Additional Insureds:** For Commercial General Liability, and Auto Liability, Contractor and subcontractor’s insurer(s) shall name the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

**D. Waiver of Subrogation:** For all coverages, Contractor’s insurer shall waive subrogation rights against the City.

**E. Subcontractors and Subconsultants:** All subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of the Contractor. Contractor shall include all such subcontractors as additional insured under its policies (with the exception of Workers’ Compensation) or shall ensure that all such subcontractors and subconsultants maintain the required coverages. Contractor agrees to provide proof of insurance for all such subcontractors and subconsultants upon request by the City.

**F. Workers' Compensation/Employer's Liability Insurance:** Contractor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. Contractor expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Contractor's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement, and that any such rejections previously effected, have been revoked as of the date Contractor executes this Agreement.

**G. Commercial General Liability:** Contractor shall maintain a Commercial General Liability insurance policy with limits of \$1,000,000 for each occurrence, \$1,000,000 for each personal and advertising injury claim, \$2,000,000 products and completed operations aggregate, and \$2,000,000 policy aggregate.

**H. Business Automobile Liability:** Contractor shall maintain Business Automobile Liability with limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement

**I. Additional Provisions:**

(a) For Commercial General Liability and Excess Liability, the policies must provide the following:

- (i) That this Agreement is an Insured Contract under the policy;
- (ii) Defense costs are in excess of policy limits;
- (iii) A severability of interests or separation of insureds provision (no insured vs. insured exclusion); and
- (iv) A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.

(b) For claims-made coverage:

- (i) The retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier

(c) Contractor shall advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Contractor will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

**K. City's Insurance.** The City is self-insured pursuant to the Colorado Governmental Immunity Act, C.R.S. §24-10-101 et seq., and shall not be required to obtain any liability, fire, casualty or other insurance as a result of this Agreement. Neither shall any contrary statement contained in any attachment or exhibit hereto be construed to shift the risk of loss or liability to the City.

**18. DEFENSE AND INDEMNIFICATION:**

**A.** Contractor hereby agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or relating to the work performed under this Agreement (“Claims”), unless such Claims have been specifically determined by the trier of fact to be the sole negligence or willful misconduct of the City. This indemnity shall be interpreted in the broadest possible manner to indemnify City for any acts or omissions of Contractor or its subcontractors either passive or active, irrespective of fault, including City’s concurrent negligence whether active or passive, except for the sole negligence or willful misconduct of City.

**B.** Contractor’s duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether Claimant has filed suit on the Claim. Contractor’s duty to defend and indemnify City shall arise even if City is the only party sued by claimant and/or claimant alleges that City’s negligence or willful misconduct was the sole cause of claimant’s damages.

**C.** Contractor will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City shall be in addition to any other legal remedies available to City and shall not be considered City’s exclusive remedy.

**D.** Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Contractor under the terms of this indemnification obligation. The Contractor shall obtain, at its own expense, any additional insurance that it deems necessary for the City’s protection.

**E.** This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

**F.** In the event of any claim to the City concerning infringement or violation of a third party’s intellectual property rights, the City will endeavor to promptly notify Contractor in writing of any such claim and will cooperate with Contractor and its legal counsel in the defense thereof. Contractor may in its discretion (1) contest, (2) settle, (3) procure for the City the right to continue using the Equipment, software, or services, or (4) modify or replace them to be non-infringing (as long as the functionality and performance are not degraded as reasonably determined by the City). The City may participate in the defense of such action at its own expense. If none of the foregoing options is reasonably possible, then Contractor will

refund a pro-rata portion of the amounts paid hereunder with respect to the Equipment, software, or services (based on the expected life thereof) and reimburse the City for all reasonable expenses for removal and replacement of the Equipment or software. Contractor is not liable for any infringement-related liabilities based upon modifications to the Equipment or software made by the City without Contractor's consent or being used or sold with products not provided by Contractor and made without Contractor's consent.

19. **CONFLICT OF INTEREST:** The parties agree that no official, officer or employee of the City shall have any personal or beneficial interest whatsoever in the services or property described herein and Contractor further agrees not to hire or contract for services any official, officer or employee of the City or any other person which would be in violation of the Denver Revised Municipal Code Chapter 2, Article IV, Code of Ethics, or Denver City Charter Sections 1.2.9 and 1.2.12.

20. **NO THIRD PARTY BENEFICIARY:** It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the City and Contractor, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other or third person or entity on such Agreement, including but not limited to subcontractors and suppliers. It is otherwise the express intention of the City and Contractor that any person or entity other than the City or Contractor receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

21. **TRADE SECRETS AND CONFIDENTIAL INFORMATION:**

A. Contractor shall not at any time or in any manner, either directly or indirectly, divulge, disclose or communicate to any person, firm or corporation in any manner whatsoever any information concerning any matters related to this Agreement which are not subject to public disclosure, including without limitation the trade secrets of businesses or entities doing business with the City and other privileged or confidential information.

B. In the event that this Agreement or any exhibit or attachment is the subject of an open records request by a third party under Colorado law, the City will notify Contractor of such request. If Contractor believes that any material furnished to the City under this Agreement is not subject to disclosure, it shall take whatever action it deems necessary or appropriate to obtain a court order from the Denver District Court to preclude such disclosure by the City.

22. **DISPUTES:** All disputes of whatsoever nature between the City and Contractor regarding this Agreement shall be resolved by administrative hearings pursuant to the procedure established by Denver Revised Municipal Code §56-106(b) et. seq. For the purposes of that procedure, the City official rendering a final determination shall be the City representative identified in Article 2 hereof.

23. **TAXES, CHARGES AND PENALTIES:** The City shall not pay or be liable for any claimed interest, late charges, fees, taxes or penalties of any nature, except as required by the City's Revised Municipal Code.

24. **PARAGRAPH HEADINGS:** The captions and headings set forth herein are for convenience of reference only, and shall not be construed so as to define or limit the terms and provisions hereof.



25. **SEVERABILITY**: It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement, except for the provisions of the Agreement requiring prior appropriation of funds and limiting the total amount payable by the City, is by the courts held to be illegal or in conflict with any law of the State of Colorado, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provision held to be invalid.

26. **SURVIVAL OF CERTAIN AGREEMENT PROVISIONS**: The parties understand and agree that all terms, conditions and covenants of this Agreement, together with the exhibits and attachments hereto, if any, any or all of which, by reasonable implication, contemplate continued performance or compliance beyond the expiration or termination of this Agreement (by expiration of the term or otherwise), shall survive such expiration or termination and shall continue to be enforceable as provided herein. Without limiting the generality of the foregoing, Contractor's obligations for the provision of insurance, for indemnity to the City and for preserving confidentiality of trade secrets and other information shall survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period.

27. **AGREEMENT AS COMPLETE INTEGRATION - AMENDMENTS**: This Agreement, together with the LPA, are intended as the complete integration of all understandings between the parties as to the subject matter of this Agreement. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written amendatory or other Agreement properly executed by the parties. No oral representation by any officer or employee of the City at variance with the terms and conditions of this Agreement or any written amendment to this Agreement shall have any force or effect or bind the City. Amendments to this Agreement will become effective when approved by both parties and executed in the same manner as this Agreement. This Agreement and any amendments shall be binding upon the parties, their successors and assigns.

28. **LEGAL AUTHORITY**:

A. Contractor assures and guarantees that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into this Agreement.

B. The person or persons signing and executing this Agreement on behalf of Contractor, do hereby warrant and guarantee that he/she or they have been fully authorized by Contractor to execute this Agreement on behalf of Contractor and to validly and legally bind Contractor to all the terms, performances and provisions herein set forth.

C. The City shall have the right, at its option, to either temporarily suspend or permanently terminate this Agreement, if there is a dispute as to the legal authority of either Contractor or the person signing the Agreement to enter into this Agreement. The City shall not be obligated to pay Contractor for any performance of the provisions of this Agreement after the City has suspended or terminated this Agreement as provided in this Article.

29. **COUNTERPARTS OF THIS AGREEMENT:** This Agreement shall be executed in two (2) counterparts, each of which shall be deemed to be an original of this Agreement.

30. **NO EMPLOYMENT OF ILLEGAL ALIENS TO PERFORM WORK UNDER THE AGREEMENT:**

A. This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the “Certification Ordinance”).

B. The Contractor certifies that:

- (1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.
- (2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

C. The Contractor also agrees and represents that:

- (1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
- (2) It shall not enter into a contract with a sub-consultant or subcontractor that fails to certify to the Contractor that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
- (3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in either the E-Verify Program.
- (4) It is prohibited from using either the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and that otherwise requires the Contractor to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.
- (5) If it obtains actual knowledge that a sub-consultant or subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such sub-consultant or subcontractor and the City within three (3) days. The Contractor will also then terminate such sub-consultant or subcontractor if within three (3) days after such notice the sub-consultant or subcontractor does not stop employing or contracting with the illegal alien, unless during such three-day period the sub-consultant or subcontractor provides information to establish that

the sub-consultant or subcontractor has not knowingly employed or contracted with an illegal alien.

- (6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S., or the City Auditor, under authority of D.R.M.C. 20-90.3.

**D.** The Contractor is liable for any violations as provided in the Certification Ordinance. If Contractor violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the City. Any such termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying Contractor from submitting bids or proposals for future contracts with the City.

31. **ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS:** Contractor consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

32. **NOTICES:** All notices required by the terms of the Agreement must be hand delivered, sent by overnight courier service, mailed by certified mail, return receipt requested, or mailed via United States mail, postage prepaid, if to Contractor at the address first above written, and if to the City at:

Manager of Public Works or Designee  
201 West Colfax Avenue, Dept. 608  
Denver, Colorado 80202

With a copy of any such notice to:

Denver City Attorney's Office  
1437 Bannock St., Room 353  
Denver, Colorado 80202

Notices hand delivered or sent by overnight courier are effective upon delivery. Notices sent by certified mail are effective upon receipt. Notices sent by mail are effective upon deposit with the U.S. Postal Service. The parties may designate substitute addresses where or persons to whom notices are to be mailed or delivered. However, these substitutions will not become effective until actual receipt of written notification.

33. **COMPLIANCE WITH ALL LAWS:** Contractor shall perform or cause to be performed all services in full compliance with all applicable laws, rules, regulations and codes of

the United States, the State of Colorado; and with the Charter, ordinances, rules, regulations and Executive Orders of the City and County of Denver.

34. **NO CONSTRUCTION AGAINST DRAFTING PARTY:** The parties and their respective counsel have had the opportunity to review the Agreement, and the Agreement will not be construed against any party merely because any provisions of the Agreement were prepared by a particular party.

35. **ADVERTISING AND PUBLIC DISCLOSURE:** The Contractor shall not include any reference to the Agreement or to services performed pursuant to the Agreement in any of the Contractor's advertising or public relations materials without first obtaining the written approval of the Manager. Any oral presentation or written materials related to services performed under the Agreement will be limited to services that have been accepted by the City. The Contractor shall notify the Manager in advance of the date and time of any presentation. Nothing in this provision precludes the transmittal of any information to City officials.

36. **CITY EXECUTION OF AGREEMENT:** The Agreement will not be effective or binding on the City until it has been fully executed by all required signatories of the City and County of Denver, and if required by Charter, approved by the City Council.

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**EXHIBIT A  
EQUIPMENT PURCHASED**

<u>Quantity</u>	<u>Item</u>	<u>Unit Price</u>
1	Kenworth K270 Loadmaster Elite Rear Loader Refuse Truck	\$116,616.90
<b>TOTAL PURCHASE AMOUNT:</b>		<hr/> <b>\$116,616.90</b>

Delivery of Equipment shall occur no later than the later of 180 days from the complete signing of this Agreement or November 15, 2014.

Deliver shall be to 5440 Roslyn Street, Denver, CO 80216.

Specifications of equipment, training, and warranties to be provided by Contractor are set out on the attached pages, which together with this cover sheet constitute **Exhibit A**.

CCD\_LOI\_MHC KENWORTH\_SMALL REAR LOADER

<b>RETURN TO:</b> Department of General Services PURCHASING DIVISION 201 West Colfax Avenue Department 304, 11 <sup>th</sup> Floor Denver, CO 80202 Phone: (720) 913-8100 FAX: (720) 913-8101	CITY AND COUNTY OF DENVER   <b>DENVER</b> THE MILE HIGH CITY	Department of General Services PURCHASING DIVISION <a href="http://www.denvergov.org/purchasing">www.denvergov.org/purchasing</a> Buyer: Michael Romero 720-913-8122  JAMES P. MCINTIRE DIRECTOR OF PURCHASING
ARIELNE BENAVIDEZ MANAGER, GENERAL SERVICES	MICHAEL HANCOCK MAYOR	

**FORMAL PROPOSAL**

Formal Proposal No. 7063

**REFUSE TRUCKS  
 Front Loader and Small Rear Loaders  
 26,000-66,000 GVWR**


**SCHEDULE OF EVENTS**

• Proposal Issued	February 19, 2013	
• Deadline to Submit Additional Questions	March 1, 2013	3:00 P.M. Local Time
• Response to Written Questions	March 6, 2013	
• Proposal Due Date	March 12, 2013	3:00 P.M. Local Time

Vendor offers to furnish to the City and County of Denver the materials, supplies, products or services requested in accordance with the specifications and subject to the Terms and Conditions described herein.

**VENDOR SIGN HERE**

Company Name: MHC KENWORTH - DENVER

By: Aaron Lay  
 (Printed or Typed Name)  
  
 (Signature)

Signature constitutes acceptance of all Terms and Conditions listed on this form and all documents attached.

***THIS PROPOSAL MUST BE RETURNED IN A SEALED ENVELOPE WITH THE PROPOSAL NUMBER AND PROPOSAL TITLE ON THE ENVELOPE.***

Reference Nos. 12-078, 12-079

**CITY AND COUNTY OF DENVER**  
**Technical Specifications and Bid Items**  
**For a**  
**Small and Narrow Rear Loader Refuse Truck**

**1.0 General Description**

A new current model year Class 7 truck de-rated to a Class 6 truck with a 26,000-lb GVWR, approximate 86" width (excluding mirrors), cab over engine with low entry, cab forward design and left hand drive. Powered by a turbo-charged diesel engine with charge air cooling, a single drive axle, 26,000 GVWR minimum (plate certified) with maximum trash yardage (yards<sup>3</sup>) rectangular shaped rear loader body that will at maximum load be at 26,000-lbs maximum GVWR. Collection operations shall be conducted in Denver's very narrow and tight "L" and "T" alleys with tight and restricted access that include tight turns, narrow pick up areas, deep drainage transitions, steep angles at street transitions into alleys etc plus side and overhead obstructions. The truck shall be suitable for a minimum of 6 years service (400 pick ups/day, 5 days/week) by Solid Waste Management in manual rear loading of residential waste materials, compacting and transporting the refuse to a landfill or transfer station and dispersing the load efficiently from the body. The truck's compaction and ejection shall operate at maximum efficiency and speed when the truck engine is at "low idle" approximately 800-rpm or less, revving engine shall not increase speed/efficiency. The truck shall be fully equipped and road ready, easily capable of transporting over the road, into, trash transfer facilities or into landfills a fully packed, truck + load, 26,000 GVWR minimum combined load.

**1.1 Standard Factory Equipment**

All standard factory equipment shall be included with the vehicle/equipment; no deletions of standard factory equipment will be permitted unless specifically superseded in these specifications. Accessories not specifically mentioned herein but necessary to furnish a complete unit ready for use shall also be included.

**1.2 Government Requirements (where applicable)**

The vehicle/equipment shall be built to, and perform in accordance with, all the requirements of the latest edition of the following standards and specifications:

- FHWA, Federal Highway Administration
- SAE, Society of Automotive Engineers Specifications
- FMVSS, Federal Motor Vehicle Safety Standards
- DOT, Department of Transportation Regulations
- AWS, American Welding Society Standards
- PUC, Public Utilities Commission (Colorado)
- NFPA National Fire Prevention Association

**1.3 Workmanship and Durability**

Workmanship throughout the vehicle/equipment shall conform to the highest standards. Durability shall be sufficient to allow safe and efficient operation of the equipment/vehicle.

Reference Nos: 12-078, 12-079

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Vendor/Sub Vendor: ABL

CCD\_PO\_PWOPS\_8571\_EXHIBIT

1.4

**Completion of Bid Items and Alternates**

Vendor shall complete each line item in "Offered Equipment" and "Cost" columns in the following manner:

- A. Provide vehicle/equipments technical information: in "Offered Equipment" provide technical information as requested and provide cost of item in "Cost" column.
- B. Included Standard Equipment: in "Offered Equipment" column provide technical information as requested for standard equipment in, "Cost" column write NC for "No Charge".
- C. Differences: in "RED" ink in "Offered Equipment" column adjacent to Description of Equipment provide information on the item being offered, in "Cost" column provide cost if there is a bid item cost.
- D. Vendors shall break out and list costs for each specification section. Failure to break out proposed costs may cause proposal to be non-responsive. Breakout costs will be used for comparisons clarifying cost issues and if deletions to the specifications need to be made.

1.5

**Major Areas of Concern**

Major Areas of Concern	Description of Concern
A.	Approximate overall width of 86" or 7'-2" excluding mirrors.
B.	Mirror width for use in tight obstructed areas to include: <ol style="list-style-type: none"> <li>1. Overall extended mirror width.</li> <li>2. Minimum mirror width.</li> <li>3. Ability for mirrors to be hit by obstructions (branches etc) and absorb the hit without damage.</li> <li>4. Ability for mirrors to be reset or adjusted into position without operator leaving operator's station.</li> </ol>
C.	Left Side Operator Cab Area to include: <ol style="list-style-type: none"> <li>1. Visibility from the driver's seats (Blind Spots)</li> <li>2. Steering wheel belly room.</li> <li>3. Shoulder leg and hip room.</li> <li>4. Head room.</li> <li>5. Operator's vision.</li> <li>6. Floor height and step distances.</li> <li>7. Ergonomic layout of vehicle and dumpster body controls.</li> <li>8. Ease and speed of operation of collection and packing functions.</li> </ol>
D.	Warranty: <ol style="list-style-type: none"> <li>1. Ability and cost to obtain a 5-year warranty on cab and chassis.</li> <li>2. Ability and cost to obtain a 5-year warranty on rear loader body, hydraulic pump, motors cylinders and controls.</li> <li>3. Location of warranty providers.</li> </ol>
E.	Service Ability: <ol style="list-style-type: none"> <li>1. Ability to easily service cab and chassis items that require regular (yearly or less) servicing and maintenance</li> <li>2. Ability to easily service rear loader body components/items that require regular (yearly or less) adjusting, servicing and maintenance.</li> </ol>



2.0

**Build Status of Vehicles:**

2.1

**Contractor and all sub vendors after receipt of the City's purchase order shall:**

The primary Contractor (prime vendor) shall be responsible for providing within 15 business days to the City a "Preliminary Build Status Plan" to include but not limited to:

- A. The "Build Status Plan" shall include sufficient detail to assure that the ordered units will meet specifications and be built to the highest quality standards and be delivered on time.
- B. Placement date of initial order with the cab and chassis manufacture.
- C. Cab and chassis manufacturer's date of order acceptance. Written order confirmation is required.
- D. Placement date of initial order with the body manufacture.
- E. Body manufacturer's date of order acceptance. Written order confirmation is required.
- F. Build dates for all cab and chassis to include start date and completion date.
- G. Build dates for the body to include start date and completion date.
- H. Delivery date of the cab and chassis to the sub vendor's body manufacturer.
- I. Beginning and completion dates for installation of the body on the cab and chassis.
- J. Beginning and completion dates for installation of the CNG system on the vehicle (if applicable).
- K. Ship date for each completed vehicle (cab and chassis with body) from sub vendor's body manufacturer to Denver and which location shipped to.
- L. Contractor and sub vendors local vehicle preparation time.
- M. Delivery of a completed vehicle meeting specifications to the City.

2.2

**The Contractor shall contact all sub vendors:**

The Contractor shall contact all sub-contractors providing accessories and equipment for the vehicle (s) and provide the sub-contractors with the a list of all accessories and equipment, manufacturer's order confirmation, order number, vehicle specifications, build date and delivery date to dealer from the vehicle manufacturer on the ordered vehicle. It is the primary selling dealer's responsibility to assure that the sub-contractors orders the accessories and equipment and has the items in stock and is prepared to install the accessories and equipment items when the vehicle arrives at the dealership.

3.0 Basic Requirements, or approved equal.  
 When a brand/model is referenced in the specifications unless it is stated as "No Approved Equal" it is only a statement of expected quality, information on alternative products shall be provided with the bid so a full technical comparison can be made of the product submitted as an "approved equal".

3.1 Basic Vehicle or Approved Equal:

Description of Equipment	Offered Equipment	Cost
<p>A. The below specification are general guide lines for a complete small rear loader trash truck the combined weight of the cab &amp; chassis, body and trash payload to not exceed 26,000-lbs but come as close as possible to maximizing the full weight capacity of the vehicle with maximum payload for "Best Route Efficiency".</p>	<p>Make: <u>KENWORTH</u> Model: <u>K270</u></p> <p>Left Side: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No            Rating: <u>26,000</u> lbs</p> <p>Wheelbase: <u>146</u> "</p> <p>C to A: <u>134</u> "</p> <p>A F: <u>70</u> "</p> <p>Cut Angle: Left <u>55</u> ° Right <u>55</u> °            Turn Dia.: Left <u>40</u> ft Right <u>40</u> ft</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>\$ _____</p>
<p>B. Cab over engine, Kenworth K270 or Peterbilt 210 or approved equal, 3-man capacity, narrow cab forward single axle design.</p> <ol style="list-style-type: none"> <li>Sit-down left side operator controls,</li> <li>Single axle 26,000 lb. minimum GVWR (plate certified),</li> <li>Wheelbase approximately 146-inch, appropriate for small rear loader body: inches,</li> <li>Effective cab to axle approximate 134-inch, clean, appropriate for rear loader trash body.</li> <li>After frame 36" minimum</li> <li>Front tire cut angle 55°</li> <li>Wall-to-wall turning diameter 54 ft. or better left and right</li> <li>Both the cab and chassis and body vendors shall verify wheelbase and weight rating is appropriate for truck and specified body for the small rear loader application.</li> </ol>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>\$ _____</p>
<p>C. The left side operator configuration is very important for operator comfort and efficiency. The operator position shall accommodate operators of various physical sizes providing good visibility, steering wheel/belly clearance, and shoulder width room. Also all the controls for operating the attached equipment shall be in an ergonomic layout/configuration that promotes minimal operator movement, operator comfort and operation efficiency.</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>\$ _____</p>
<p>D. Frame:</p> <ol style="list-style-type: none"> <li>Rating 26,000-lbs. GVWR or better minimum,</li> <li>Heavy-duty 120,000-psi full channel heat-treated steel, with main frame 1,938,000 in-lb. RBM minimum.</li> </ol>	<p>Frame Rating: <u>26,000</u> -lbs            Yield Strength: <u>120,000</u> psi            Section Modulus/rail: <u>11.65</u> in³            Frame RBM/rail: <u>1,398,664</u> lb-ft/in</p>	<p>\$ _____</p>

<p>E. Component Service:</p> <ol style="list-style-type: none"> <li>All components that require regular servicing shall be easy to access and be located as much as possible to protect the components from road splash.</li> <li>Access to rear engine mounts or transmission removal should not require the removal of electrical wiring, hydraulic hoses, air tanks or air dryers.</li> <li>Air dryer shall be easy and quick to access for servicing.</li> </ol>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Mounting Location: IH Rail</p>	<p>\$ _____</p>
<p>F. Towing Provisions:</p> <ol style="list-style-type: none"> <li>Tow hooks, two front frame mounted.</li> <li>Air brake 1/4" female Type "C" steel quick-connect hook up system on vehicle for wrecker air brake connection.</li> <li>Connector shall be equal to: Camel PN 61-523 or Amflo PN C2 or Schrader PN 3504, "Reference Only".</li> <li>Quick-connectors shall be accessible and protected but shall not stick out where they could get damaged.</li> <li>A check valve shall be provided at the vehicles air tank to prevent air loss.</li> </ol>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Make: not available Model: _____</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>\$ _____</p> <p>\$ _____</p>
<p>G. Keying:</p> <ol style="list-style-type: none"> <li>Keys keyed alike Ignition, Door, (same) and Toolboxes (same), 2 standard sets per vehicle.</li> <li>Additional 5 key sets</li> <li>If the City has similar make and model trucks in fleet the trucks shall be keyed the same as existing trucks.</li> </ol>	<p>Cost for 5 additional set of keys: \$ 35.00</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>\$ NC</p> <p>\$ 35.00</p> <p>\$ _____</p>

3.2

Engine or "Approved Equal"	Description of Equipment	Offered Equipment	Cost
A.	<p>Engine:</p> <p>Diesel turbocharged Cummins ISB 6.7L, diesel, rated at approximately 250 hp @ 2,300 rpm, torque approximately 660 lb/ft @ 1,600 rpm, 2,600 rpm governed includes: Engine shall be appropriate for the small rear loader trash truck application</p> <ol style="list-style-type: none"> <li>Engine shall utilize DEF (diesel exhaust fluid) to meet current and 2014 EPA regulations and reduce NOx and "Green house Gas emissions.</li> </ol>	<p>Make: <u>PX-^</u> Model: <u>ISB 6.7L</u></p> <p>HP: <u>250</u> @ <u>2300</u> rpm</p> <p>Torque: <u>660</u> @ <u>1600</u> rpm</p> <p>Emissions Rating: <u>2014 Model and current EPA Meets 2014 "Green House Emissions": Yes No</u></p> <p>2013 CUMMINS</p>	<p>\$ _____</p>

Description of Equipment	Offered Equipment	Cost
<p>2. Engines shall be electronically controlled with following components:</p> <ol style="list-style-type: none"> <li>Engine protection system to monitor low oil pressure, high coolant temperature and low coolant level that will prevent component damage with manual over-ride on truck engine:</li> <li>Low oil pressure.</li> <li>High oil temperature.</li> <li>High coolant temperature.</li> <li>Low coolant level.</li> <li>High transmission oil temperature.</li> <li>Idle shutdown timer.</li> <li>Speed limiter top gear and cruise.</li> <li>Computer controlled fast idle and PTO protection.</li> <li>Thermos bottle stopper-type dipstick.</li> <li>Magnetic drain plug.</li> <li>Alternator 160-amp.</li> <li>Starter 12v with over-crank protection.</li> </ol>	<p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Make: BOSCH Model: 160AMP          Make: DECTO Model: 12V 29WT</p>	<p>\$</p> <p>\$</p>
<p>B. Filtration:</p> <ol style="list-style-type: none"> <li>Oil: Fleetguard LF3000 full flow/bypass oil filter.</li> <li>Fuel: Racor 690RP12 fuel/water separator with thermostatically controlled fuel line heater.</li> </ol>	<p>Make: Paccar / Fleet Model: _____          Make: Paccar Model: PX6 - ISB</p>	<p>\$</p> <p>\$</p>
<p>C. Engine Air Intake:</p> <ol style="list-style-type: none"> <li>The air intake shall be on the far left side of the vehicle at cab height.</li> <li>The air intake shall be positioned so that it can not draw in exhaust gases.</li> <li>Air filter dual element dry type with air inlet restriction indicator located in cab</li> </ol>	<p>Yes No RH SIDE</p> <p>Yes No</p> <p>Make: N/A Model: _____</p>	<p>\$</p>
<p>D. Exhaust Meeting 2014 Tier 4 EPA Standards:</p> <ol style="list-style-type: none"> <li>Exhaust discharge shall be on the opposite side from the driver's station to reduce exhaust getting into the cab.</li> <li>The exhaust after treatment device shall be installed so as to not obstruct maintenance/repairs underneath the truck.</li> <li>Maximum exhaust system height shall not be higher than the highest point on the body or truck.</li> </ol>	<p>Trap Make: PACCAR Model: DOF/SCR CROSS          Location: 1h FRAME RAIL</p> <p>Yes No</p>	<p>\$</p>

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Description of Equipment	Offered Equipment	Cost
<p>4. Horizontal with a vertical chrome stack and stainless steel exhaust guard that will easily fit up to Denver's exhaust gas evacuation system.</p> <p>5. Exhaust discharge shall be above roofline and exhaust gases shall not discolor the body or be drawn into the operator's cab.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>E. Fuel tank:</p> <p>1. Fuel tank 45-gallons minimum with non-slip step in tank shall be mounted on right side of chassis to provide step and platform for accessing the body clean-out door.</p> <p>2. The tank shall frame mounted.</p> <p>3. Fuel tank may be combined with body supplier's hydraulic tank.</p>	<p>Size: <u>45</u> gallons</p> <p>Location: <u>LH FRAME RAIL</u></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	\$ _____
<p>F. Diesel Enhancement Fluid Tank:</p> <p>1. Location behind fuel tank.</p> <p>2. Size 6.5-gallons minimum.</p> <p>3. Tank fill opening shall be easily identified as "DEF Fluid Only" and shall not accept the entrance of a standard diesel fuel nozzle.</p>	<p>Location: <u>BEHIND FUEL TANK</u></p> <p>DEF Tank Volume: <u>6.6</u> gallons</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	\$ _____
<p>G. Coolant Hoses:</p> <p>1. Gates Blue Stripe hoses</p> <p>2. With constant torque hose clamps.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><u>PACCAR BRANDED</u></p>	\$ _____
<p>H. Fan:</p> <p>1. Fan clutch heavy-service-duty with automatic fan control.</p> <p>2. The fan shall operate off of engine coolant and transmission coolant temperature.</p>	<p>Make: _____ Model: _____</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	\$ _____
<p>I. Air compressor:</p> <p>1. 18.7-cfm.</p>	<p>Make: <u>CUMMINS</u> Model: <u>18.7 CFM</u></p> <p>Capacity: <u>18.7</u> cfm</p>	\$ _____
<p>J. Cold weather starting aids on truck engine. "No Approved Equal" Block heater, Phillips "Zero-Start" 120VAC, 1500 Watt; engine coolant temperature controlled to:</p> <p>a. Turn "on" at 40°F engine coolant temperature.</p> <p>b. Turn "off" at 55°F engine coolant temperature.</p> <p>2. The plug-in station shall have 2 LED indicator lights to:</p> <p>a. Light when plugged into "hot line" to show "hot line is energized.</p> <p>b. Light when engine coolant drops below 40°F.</p> <p>3. Plug-in shall be mounted below driver's door, protected from mechanical and weather damage. Heater plug shall be a male standard grounded 15 amp rated plug.</p>	<p>Make: <u>PACCAR</u> Model: <u>IMMERSTON</u></p> <p>On Temperature: <u>110-120V</u></p> <p>Off Temperature: _____</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Location: <u>BACK OF CAB</u></p>	\$ _____

Description of Equipment	Offered Equipment	Cost
4. A decal or information plate shall be provided describing how the system functions. The decal/plate shall be heavy-duty UV protected and capable of withstanding pressure washing and other normal vehicle functions. 5. Cold weather starting assist (no ether allowed).	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> ENGINE BLOCK HEATER Type: _____	\$ _____

3.3 Transmission and Drivetrain

Description of Equipment	Offered Equipment	Cost
A. Transmission shall be an Allison New World 2100RDS-P with PTO, wide ratio, 5-speeds minimum with the following components: 1. Transmission and rear differential gearing shall be optimized for refuse operation and "Best" fuel economy. 2. Transmission interface wiring for Allison MD/HD transmission. 3. Electric push-button transmission controls shall be located in an easy to access location 4. Transynd TES 295 automatic transmission fluid. 5. Allison High-Capacity filters for extended drain interval of 75,000 miles or 36 months. 6. Transmission water-to-oil cooler. 7. Remote mounted transmission filter. 8. Magnetic drain plug.	Make: ALLISON Model: 2100 RDS Speeds: 5 Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> COBRA SHIFT Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> BODY MFG RESPONSIBILITY Make: _____ Model: _____ Location: _____	\$ _____
B. Power Take Off (PTO) 1. Transmission direct mounted Chelsea 890 series with hydraulic pumps direct mounted to Chelsea 890 PTO at rear of the transmission. 2. PTO control electrically actuated from inside cab. 3. PTO speed limiter shall be connected to the engine computer not to an external overspeed box (EOS). 4. PTO shall efficiently operate all hydraulic systems at engine "low idle" 750 rpm or less. Increasing engine speed above 800 rpm shall not improve hydraulic operations.	PTO Idle rpm: 750 RPM Yes <input type="checkbox"/> No <input type="checkbox"/>	\$ _____
C. Automatic Work Brake Hold Activated with: 1. Manually very easy to access button or switch.	Yes <input type="checkbox"/> No <input type="checkbox"/>	\$ _____
D. Rear Axles: 1. Eaton single reduction, capacity 20,000-lbs. de-rated to 16,000-lbs 2. Oil Pump	Make: DANA SPICER Model: P20060S Yes <input type="checkbox"/> No <input type="checkbox"/>	\$ _____

Description of Equipment	Offered Equipment	Cost
3. Axle ratio for best fuel economy with an approximate 65-mph top speed. 4. Oil seals, Union 76 Triton EP 75W-90 synthetic gear lubricant. 5. Magnetic drain plug.	Top Speed: 79 mph level Gear ratio: <del>5.57</del> 5.29 Yes No Yes No SYNTHETIC GEAR LUBRICANT / SEAL TYPE DEPENDING Yes No	
E. Front Axle: 1. Eaton, capacity 12,000-lbs. de-rated to 10,000-lbs with oil seals and Union 76 Triton EP 75W-90 synthetic gear lubricant.	Provide specs: N/A Make: DANA SPICER Model: E-12021 Capacity: 10,000	
F. Springs: 1. Front leaf with graphite impregnated spring pin bushings. Front: capacity 12,000-lbs. minimum. 2. Rear leaf with torque arm Reyco model 79 Rear: capacity 21,000-lbs. de-rated to 16,000-lbs	Make: PACCAR Model: 12KP Capacity: <del>12,000</del> lbs #8948 Make: REYCO Model: 79KB Capacity: <del>16,000</del> lbs #17,052	
G. Brakes: 1. Eaton, S-cam, (16.5" x 5" front, 16.5" x 7" rear) extended service brakes with outboard mounted cast iron drums, dust shields, non-asbestos brake block. 2. Brake spiders shall be heavy-duty design with fasteners in all possible locations.	Make: _____ Model: _____ Size: 15" X5" Front: _____ Rear: <del>15X8-25</del> 15" X8.625	
H. Anti-Lock Brake System / Automatic Traction Control system: 1. Anti-Lock Brake System (ABS): Eaton 4S/4M with ATC, 4-channel with (4 sensors & 4 modulators) and 5-9 psi crack pressure relay valve. 2. Automatic Traction Control (ATC) shall work in conjunction with the Eaton ABS brake system in low traction situations limiting torque to least loaded tire allowing most loaded tire to receive torque and pull the vehicle. The ATC system in conjunction with the Interaxle Driveline Lock shall provide traction control very similar to the Driver Controlled Differential Lock system. 3. Air lines shall be color-coded nylon type.	Make: MERRITOR WABCO Model: 4S/4M Yes No Yes No	
I. Air Dryer, (No Approved Equals) 1. Bendix AD-1P with heated steel reservoir, automatic moisture ejector and cable operated air tank drain valves accessible from outside of vehicle. 2. Air dryer shall be installed on the outside of the frame rail in a location that is easily accessed and does not exceed 150mm from service unit.	Make: BENDIX Model: AD-1S Yes No	

J.	DriveLine: 1. Heavy-Duty suitable for trash application. 2. Eaton Permalube type U-joints or approved equal.	Yes <input type="checkbox"/> No <input type="checkbox"/> Make: SPL Model: 100	\$ _____
K.	Power Steering: 1. TRW with 2-qt. reservoir.	Make: ZF LENKSYSTEME Model: ps	\$ _____

3.4

Electrical System		Offered Equipment	Cost
A.	Alternator: 1. Heavy duty, internally regulated, output 160-amp minimum.	Make: BOSCH Model: 160A Rating: 160 amps	\$ _____
B.	Batteries: A. Two or three Group 31 batteries with a total CCA of 2,000 minimum. B. Battery location frame mounted left hand side. C. Battery shut-off switch easy to see and access. D. Jump start provision easy to access. E. Battery cables (00) stranded copper minimum.	Make: PACCAR GP Model: 31 Quantity: 2 CCA's: 1400 Location: RH Yes No Yes No Size: 00	\$ _____
C.	Circuit Protection: 1. Circuit breakers with manual reset, no fuses. 2. Circuit breaker panel shall be easy to access. 3. Circuit breaker panel shall be clearly labeled for easy identification.	Yes No Yes No Yes No	\$ _____
D.	Wiring: 1. Wiring shall be color coded with hot stamped wire numbers. 2. All wiring shall be run in sealed wiring looms to reduce corrosion from magnesium chloride products	Yes No Yes No	\$ _____
E.	Body Builder's Junction Box 1. Body builder's junction box shall be provided. 2. Terminal shall be marked for easy identification.	Yes No Yes No	\$ _____
F.	Back Up Alarm: 1. Back up alarm, 107 dB, SAE type B, fully sealed, back-up alarm system wired into vehicle's backup light system using OEM plug-in adapter. 2. The alarm shall be mounted out of the vehicle's rear wheel splash area.	Yes No Yes No 12v BPDY CONNECTION	\$ _____
G.	Cab and Chassis Lights: 1. Halogen sealed beam headlights, 12v. 2. Daytime running lights. 3. Wiring shall be sealed modular plug-in type. 4. Marker lights LED type.	Yes No Yes No Yes No Make: N/A Model:	\$ _____



3.5 Cooling System

Description of Equipment	Offered Equipment	Cost
A. Cooling system with coolant recovery tank capable of maintaining engine manufacturer's recommended operating temperatures at an elevation of 6,800' in 120° F low humidity ambient conditions shall be provided.	Yes No	\$ _____
B. Coolant protection shall be -34° F.	Protection Level: -34 °	\$ _____
C. Fleetguard coolant filter WF2071.	Make: N/A Model: _____	\$ _____

3.6 Tires and Wheels

Description of Equipment	Offered Equipment	Cost
A. Tires: 11R22.5, tubeless, load range H. 1. Front: Michelin XZY-3, All-Position Tires 6,610 lb rated @ 120 psig 2. Rear dual: Michelin XZY-3 All-Position Tires 6,610 lb rated @ 120 psig	Make: BRIDGESTONE Model: R250F-11x22-5 Make: BRIDGESTONE Model: M711-11R22.5 NET DEDUCT: \$245,70R19.5 16 PLY	\$ _____
B. Wheels: 1. Disc, 10-hole, Hub piloted type, Single nut, Meets ISO Standard 4107, size 22.5" x 8.25" 2. Powder epoxy coated finish, color "White".	Make: ACCURIDE Model: 50487pw Size: 22-5 X 8-25 19.5 X 8.25 Powder Coated: Yes No Color: WHITE E-COAT POWDER NET DEDUCT: \$243.10	\$ _____

3.7 Interior

Description of Equipment	Offered Equipment	Cost
A. Left side operating controls: 1. Vehicle operation shall be only from left side of vehicle. 2. Driver's controls shall be ergonomically laid out for maximum driver efficiency in operating the rear loader collection body. 3. Doors: a. Left and right doors shall be front hinged. b. Left and right doors shall have power full roll up/down windows. c. The right door shall have a lower door window to provide better visibility and safer operation.	Driving Location: LH side Yes No Yes No Yes No DAY LIGHT DOORS ON CABOVER	\$ _____
B. Seating 3 Person Cab shall be: 1. Driver's left seat shall be air suspension Bostrom, high back driver's seat, gray vinyl with cloth insert and armrests. 2. Passenger right side seat shall be 2-person bench with spring suspension mid-back seat, gray vinyl with cloth insert	Make: ISRINGHAUSEN Model: FABRIC HB Make: KENWORTH Model: 2-MAN BENCH	\$ _____

<p>C. Engine Cover "Doghouse"</p> <ol style="list-style-type: none"> <li>The engine cover "doghouse" shall be designed to accommodate the ergonomic positioning of the rear loader body controls without obstructing operator vision.</li> <li>The vehicle manufacturer shall work with the body supplier to assure that the controls are the most ergonomic possible to assure operator comfort and reduce repetitive motion injuries.</li> <li>The City has operators of varying statures and adjustable controls will minimize on-the-job related physical problems.</li> <li>The City, body vendor and the vehicle supplier shall mutually determine rear loader control locations after Contract award.</li> </ol>	<table border="0"> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td>Yes</td> <td>No</td> </tr> </table>	Yes	No	Yes	No	Yes	No	Yes	No	<p>\$ _____</p>
Yes	No									
Yes	No									
Yes	No									
Yes	No									
<p>D. Required Submittals with Bid:</p> <ol style="list-style-type: none"> <li>Requested information must be submitted with bid for evaluation. Failure to submit the requested information may make bid non-responsive.</li> <li>Vendor shall provide with bid, drawings with dimensions and photographs of the proposed cab interior for review.</li> <li>Interior left side dimensions measured:       <ol style="list-style-type: none"> <li>Bally Room: seat back to steering wheel.</li> <li>Leg Room: seat front edge to brake pedal.</li> <li>Head Room: seat cushion to ceiling.</li> <li>Torso Room: Width from door to doghouse or other obstruction.</li> <li>Seat fore/aft travel:</li> <li>Seat height travel:</li> <li>Steering Wheel Knuckle Clearance: distance to closest object</li> <li>Floor Height: measured ground to cab floor.</li> <li>Cab Step Heights: measured from ground.</li> <li>Steering Wheel Tilt and Telescoping:</li> <li>Location of the transmission shifter: should not be obstructed by any rear loader body controls.</li> </ol> </li> </ol>	<p>Provide Materials: _____</p> <table border="0"> <tr> <td>Yes</td> <td>No</td> </tr> </table> <p>       Seat full forward: _____ "      Seat full back: _____ "        Seat full forward: _____ "      Seat full back: _____ "        Seat full lowered: _____ "      Seat full raised: _____ "        Smallest measurement: _____ "        Travel: _____ "        Travel: _____ "        Clearance: _____ "        Height: _____ "        1<sup>st</sup> Step: 17.5"      2<sup>nd</sup> Step: 29.5"      14" LIDEN &amp; 26" LADEN        Tilt: _____ °      Telescoping distance: _____ "        NOT OBSTRUCTED     </p>	Yes	No	<p>\$ _____</p>						
Yes	No									
<p>E. Instrumentation:</p> <ol style="list-style-type: none"> <li>Instrumentation shall include speedometer, engine hourmeter, tachometer, voltmeter, coolant temperature, oil temperature, oil pressure, fuel level and air pressure with low-pressure alarms (light, audible).</li> </ol>	<table border="0"> <tr> <td>Yes</td> <td>No</td> </tr> </table>	Yes	No	<p>\$ _____</p>						
Yes	No									

<p>F. Steering:          1. Steering controls shall comfortably accommodate operators of various sizes, from short and small to tall and larger.          2. Steering tilt easy to adjust          3. Telescoping easy to adjust,</p>	<p>Yes No          Tilt: Yes No          Telescoping: Yes No Travel In-Out: in</p>	<p>\$ _____</p>
<p>G. Uppifter's Switch Panel:          1. The vehicle manufacturer shall provide for the rear loader body manufacture an uppifter's switch panel for automated rear loader body control switches.          2. The panel location shall be in an ergonomic location and shall not require more than 30° head movement and be within easy reach of driver's of various sizes and physiques.          3. The switch panel shall have permanently labeled and lighted rocker switches for all optional sundries equipment and lights etc.</p>	<p>Yes No          Yes No          Yes No</p>	<p>\$ _____</p>
<p>H. Floor Covering:          1. Floor covering shall be heavy-duty black rubber/vinyl flooring.</p>	<p>Yes No</p>	<p>\$ _____</p>
<p>I. Windshield Wipers:          1. Wipers 2-speed self parking.          2. Intermittent wiper mode.</p>	<p>Speeds: multiple          Yes No</p>	<p>\$ _____</p>
<p>J. Air Conditioning:          1. Factory installed cab R134A air conditioning          2. Cab shall be insulated to include floor, firewall, roof and walls.</p>	<p>Refrigerant Type: PACCAR          Yes No</p>	<p>\$ _____</p>
<p>K. Radio:          1. AM/FM stereo with two speakers.</p>	<p>Make: KW Model: AM/FM/CD</p>	<p>\$ _____</p>
<p>L. Fire extinguisher:          1. Extinguisher ABC, 5-lb. dry type rechargeable          2. Installed in cab.          3. Location labeled with "1" letters on outside of the cab.</p>	<p>Type: abc 5#          Yes No</p>	<p>\$ _____</p>
<p>M. Grab Handles:          1. One each side on exterior of cab for operator and passenger assist and one interior for passenger.          2. Grab handles shall provide adequate clearance to other objects to provide easy access and clearance to prevent pinch or other hazards.</p>	<p>Yes No          Yes No</p>	<p>\$ _____</p>

3.8

Exterior:

Description of Equipment	Offered Equipment	Cost
A. Vendor shall provide with bid drawings with dimensions and photographs of the proposed cab exterior including mirrors for review. Failure to submit the requested information may make bid non-responsive.	Provide Materials: _____ _____ _____	\$ _____ _____ _____
B. Cab Design: 1. Heavy-duty type with steel or aluminum body. 2. High visibility tilt forward design. 3. Front hinged doors. 4. Low floor cab over with steps mounted to body. 5. Maximum step height 15".	Body Rating: CLASS 6 Body Material: ALUM Yes No Yes No Step Height: 14 " in	\$ _____ _____
C. Paint: 1. Polyurethane paint equal to DuPont Imron 5000, "Bright White", applied following manufacturer's procedures to include: 2. Color top coat, 2 coats, applied to all non-stainless steel components following manufacturer's procedures. 3. Removing all mill scale and slag. 4. Variprime 615S self-etching primer or approved equal. 5. Treating bare metal with manufacturer's conditioners and conversion coatings or approved equal.	Make: M8870 Type: BASE/CLEAR Color: ICE WHITE	\$ _____
D. Engine Accessibility: 1. The engine shall be fully accessible and serviceable, 2. The cab shall tilt forward for access by easily operated momentary switch and 12v DC electric pump located on right side of vehicle.	Yes No Yes No	\$ _____
E. Mirrors: "No Approved Equal" 1. Rear view mirrors Moto Mirror Model 7-5400 "Flat Back Traditional" 7" x 16" motor head, remote, heated, stainless steel left and right mounted on the cab. 2. Convex 8" stainless steel mirrors mounted under primary mirrors. 3. A right hand down mirror shall also be provided to cover front and side blind spot for shorter drivers under 5'-6" tall. 4. Overall cab width including mirrors 112" maximum.	Overall mirror full extended width: 122.1 inches Overall mirror width with left side mirror folded in: 113 inches Make: PACCAR Model: RHLD MIRROR	\$ _____ \$ _____

<b>VEHICLE SUB TOTAL COST</b>	<del>\$ 67,595.00</del>
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\$67,341.19  
 + \$2,000 (Frame Adjustment)  
**\$69,341.19**

#### 4.0 Dealer Provided Optional Equipment

##### 4.1 Electrical Systems:

- A. All non-factory wire connections (splices, connectors, etc.) shall be soldered and shrink tube insulated with adhesive/meltable sealant, thick wall polyolefin shrink tubing (3M EPS-300 or equal). No non-factory crimp connections allowed. No cutting or splicing into the factory wiring harnesses allowed.
- B. All accessories (strobe lights, operator controls, light bar, etc.) shall be wired through a 12-VDC constant-duty solenoid and controlled by bus bar mounted and permanently labeled auto-resetting circuit breakers. The solenoid shall be wired to the key switch.
- C. All dealer/vendor installed items, which require connecting into the vehicle's electrical system shall be done using an OEM factory modified wiring kit whenever possible.
- D. All non-factory wiring shall be encased in a totally sealed wiring harness (no plastic split loom) to prevent corrosion from magnesium chloride. The wiring harness shall be well secured to the truck with neoprene aircraft stainless steel tubing clamps. Rubber grommets shall be used at all areas where the wiring passes through areas that could damage the wiring. Unprotected wiring in any application is unacceptable.
- E. Electrical cables and wiring harnesses shall be neatly run and clamped with neoprene aircraft stainless steel tubing clamps. Clamp spacing shall not exceed 18-inches.
- F. Dielectric grease shall be applied to all electrical plug terminals and connections to reduce corrosion.

##### 4.2 Fasteners:

- A. Grade 5 (SAE or USS) or 8.8 (metric) minimum, bolts, nuts, washers minimum. Vendor shall use Grade 8 or 10.9 for all critical areas or where good engineering practice suggests.
- B. All fasteners shall be zinc plated to prevent corrosion.
- C. Anti-Seize: all fasteners shall have Fel-Pro C5A Anti-Seize compound applied before assembly to prevent corrosion, rusting, galling and aid in equipment servicing and repair.
- D. All fasteners shall be of appropriate length, diameter and strength (grade) for the application,
- E. Bolts and screws shall extend a minimum of 1-1/2 threads beyond the nut and maximum of 6 threads past the nut.
- F. Flat washers shall be used under bolt heads and nuts.
- G. Lock nuts (nylon insert, metal, slotted, castle nuts) shall be used lock-washers are not acceptable.

##### 4.3 Hydraulic Systems:

- A. All hydraulic circuits shall be pressure relief protected.
- B. Hydraulic hoses shall be Parker ST 451 (tight bend radius) 2-wire braid hose meeting SAE-100R17 specifications where the hose meets operational criteria or approved equal.
- C. Hydraulic hoses shall have swivel fittings on both ends. Hose ends shall be located to facilitate easy component replacement.
- D. High-pressure hydraulic hose shall not be used for suction lines.
- E. Close/tight radius 90° elbow fittings shall not be used if short, medium or long drop steel stem 90° elbow fittings can be used. Over use of 90° elbows shall not be permitted.
- F. Hydraulic hoses and rigid lines shall be run parallel where possible; routing shall look neat and well planned.

- G. Rubber cushioned metal hydraulic clamps shall be used on all hydraulic ridged lines and hoses at proper intervals for supporting the line/hose 36" maximum distance. Clamps shall be securely mounted to the equipment.
- H. Hydraulic hoses and lines shall not be routed near exhaust, close to rotating components or over, around or through sharp edges. Rubber grommets shall be used at all areas where the hydraulic lines through areas that could damage the lines.
- I. Galvanized fittings and thread tape shall not be used.
- J. Hydraulic hoses shall be covered with protective spiral nylon anti-chaffing wrap or sock type protective sleeves at all areas where chaffing/rubbing could cause premature wear/failure.
- K. Hydraulic oil tanks shall magnetic drain plug, oil level and temperature gauge.
- L. Hydraulic hoses over 4' long shall be labeled on both ends for easy identification.
- M. Shut off valves ¼-turn on each side of filter.

4.5 All fabricated parts, brackets etc. shall have all sharp corners, edges etc. radiused or rounded for safety.

4.6 Welds:

- A. All welds shall meet AWS (American Welding Society) standards for the type weld, material joined and welding method.
- B. Weld joints shall have proper design and fit for the application.
- C. Welds joints shall have proper penetration and be smooth in appearance with no undercuts or overlaps at edge of weld.
- D. Weld joints shall be properly prepared with cut ends ground to remove all slag, create a smooth surface and beveled end.

4.7 Rear Loader Body or (Approved Equal)

When a brand/model is referenced in the specifications unless it is stated as "No Approved Equal" it is only a statement of expected quality, information on alternative products shall be provided with the bid so a full technical comparison can be made of the product submitted as an "approved equal".

A. Description of Equipment	Offered Equipment	Cost
<p>The below specification are general guide lines for a complete small rear loader trash truck the combined weight of the cab &amp; chassis, body and trash payload to not exceed 26,000-lbs but come as close as possible to maximizing the full weight capacity of the vehicle with maximum payload for "Best Route Efficiency".</p>	<p>Make: Loadmaster _____ Model: Elite _____            Body Width: 85.5 _____ inches            Body Capacity: 11 _____ yds³            Body Weight Empty: 8500 _____ lbs            Compaction weight/yard³: 1000 _____ lbs            Weight of Body with Trash @ full load: 19,500 _____ lbs</p>	<p>\$Incl _____</p>
<p>B. A current year, new narrow 86" wide maximum rear loader refuse truck with maximum cubic yard capacity for the 26,000-lb class 6 truck rating with heavy-duty commercial package or approved equal, installed with the following equipment: The truck and body at full load compaction shall be as close to 26,000-lbs as possible without exceeding 26,000-lbs. Trash capacity/weight shall be a prime consideration in determining the best trash body for this application</p>		

<p>C. Vendor shall within 45 days of contract award submit drawings to the City showing the placement of all major components to include but not be limited to: front/rear bumpers, air filter, exhaust system with trap, air dryer, air tanks, fuel tank, battery box, daily fluid checks/fills, rear riding steps and hand holds, rear packer body controls, hydraulic tank, hydraulic valves, electrical junction box, access doors, tool holders etc.</p>	<p>Provide specs: _____                  _____                  _____                  _____                  _____</p>	<p>\$Incl _____</p>
<p>D. The compactor body shall have:                  1. Body capacity "Best for Application" cubic yards approximate:                  2. Capable of packing 800-lbs. per cubic yard based on average household refuse.                  3. Hopper packer cycle time 20 to 26-seconds.                  4. Blade reload time: 7 - 10 seconds                  5. Hopper capacity, "Best for Application" cubic yards.                  6. Hopper loading height at frame height or below truck frame.                  7. Ejector panel shall fully travel full length of the body to completely eject the compacted load of refuse.                  8. Load ejection time: 45 seconds                  9. All body and component welds shall be fully welded "No Gaps" in welds.</p>	<p>Capacity: 11 _____ yds<sup>3</sup>                  Packing Force: 1000 _____ lbs./yard<sup>3</sup>                  Hopper Cycle Time: 18 _____ Seconds                  Reload Time: 7 to 10 _____ seconds                  Hopper Capacity: 1 _____ yds<sup>3</sup>                  Hopper Loading Height: _____ in                  X Yes No                  Ejection Time: 45 _____ seconds                  X Yes No</p>	<p>\$Incl _____</p>
<p>E. Compactor Body:                  1. Installed with 7" clearance from the exhaust or air intake system.                  2. Body width shall not exceed 86-inches.                  3. Body length, "Best for Application"                  4. Body height above frame rails, 86" maximum.                  5. Body weight: lbs "Best for Application"                  6. The body shall be mounted on steel runners (wood not permitted). Body shall be designed/constructed to withstand repeated maximum packing pressures without distortion. The vertical channel bracing must interconnect with roof channels to form a wrap-around channel design. <b>All welds shall be continuous.</b>                  8. Body sides, top, "Best for Application" hi-tensile 50,000-psi steel.                  9. Body front head sheet "Best for Application" hi-tensile 50,000-psi steel                  10. Body floor, "Best for Application" hi-tensile abrasion resistant 80,000-psi steel with 1/4" hi-tensile 80,000-psi steel rear ramp.                  11. Floor side walls and roof shall be smooth no trough in floor.                  12. Hopper floor "Best for Application" 150,000-psi hi-tensile abrasion resistant steel.                  13. Hopper side walls "Best for Application" hi-tensile 50,000-psi steel</p>	<p>Clearance: _____ 7 _____ in                  Body Width: 85.5 _____ in Body                  Length: _____ ft _____ in                  Body Height from Ground: _____ ft _____ in                  Weight: 8500 _____ lbs                  X Yes No                  X Yes No                  Thickness: 10 Ga _____ Steel Strength: 50,000 _____ psi                  Thickness: 10 Ga _____ Steel Strength: 50,000 _____ psi                  Thickness: 1/4 _____ Steel Strength: 80,000 _____ psi                  Thickness: 1/4 _____ Steel Strength: 100,000 _____ psi                  Thickness: 3/16 _____ Steel Strength: 50,000 _____ psi</p>	<p>\$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____                  \$Incl _____</p>

<p>14. Packer blade/plate, heavy-duty "Best for Application" 80,000-psi steel.          15. Ejector panel "Best for Application" hi-tensile 50,000-psi steel          16. Full exterior continuous body welds.          17. Access door 30" x 30" with 3' radiused corners located on street side front hinged with turn handle lock.</p>	<p>Thickness: 3/16 _____ Steel Strength: 100,000 ___ psi          Thickness: 10 Ga _____ Steel Strength: 50,000 ___ psi          X Yes No          Door Size: 20 _____ x 26 _____</p>	<p>\$ Incl _____          \$ Incl _____</p>
<p>F. Tailgate:          1. Tailgate packing shall utilize 2 double acting cylinders with a 40,000 lb packing force.          2. Sweep panel shall rotate through a 70° arc to assure complete hopper scavenging.          3. Sweep panel face shall be smooth with adequate reinforcing to prevent deformation.          4. Tailgate sides shall be "Best for Application" steel 50,000 psi steel with formed 3" structural tube reinforcement.          5. Tailgate lock hydraulic automatic locking.          6. Tailgate seal              a 1-piece rubber seal with tensile strength of 1,500-psi.              b The seal shall extend across the bottom and up the sides to prevent leakage.          7. Tailgate props (one per side) to hold tailgate in open position.          8. Tailgate shall have speed limiting orifices to limit speed of descent in case of a hydraulic line failure.          9. Tailgate top sheet if required shall be 2-piece polyethylene, color "white" secured with quick release (no tools required) fasteners.</p>	<p>Force: 53,000 ___ psi-lb force @ 2000 ___ psi          Panel Rotation: 70 _____          Sweep Panel Smooth and well reinforced _____          Steel Type: gr 50 _____ Gauge: 10 _____          Yield: 50,000 _____          Seal Strength: 1500 _____ psi          X Yes No          X Yes No</p>	<p>\$ Incl _____          \$ Incl _____          \$ Incl _____          \$ Incl _____</p>
<p>G. Hopper:          1. Hopper volume: "Best for Application" yds³.          2. Hopper floor "Best for Application", 150,000-psi hi-tensile abrasion resistant steel.          3. Hopper sides "Best for Application" high-tensile 50,000-psi yield steel.          4. Hopper drain plug, 1 1/4" dia minimum, which will retain liquid but easy to remove without tools for draining and flushing hopper.</p>	<p>Hopper Volume: 1 _____ yds³          Steel Type: T-1 _____ Gauge: 1/4" _____ Yield: 100,000          Steel Type: Gr 50 _____ Gauge: 1/4" _____ Yield: 50,000          X Yes No</p>	<p>\$ Incl _____</p>
<p>H. Packer Panel:          1. Trash shall be compacted between the pack panel and the ejector panel          2. Packer and carrier plates "Best for Application" 80,000-psi hi-tensile steel.</p>	<p>How Compacted: As Specified _____          Steel Type: T-1 _____ Gauge: 3/16 _____ Yield: 100,000</p>	<p>\$ Incl _____</p>



<ol style="list-style-type: none"> <li>3. The pack cylinders shall be located inside the tailgate shell for protection from tree limb damage.</li> <li>4. The panel shoes shall be replaceable without removing the ejector panel.</li> <li>5. Carrier plates, "Best for Application" 100,000-psi steel.</li> <li>6. Carrier plate shall rotate on 2 heavy-duty forged arms, with tapered roller bearings with easy to access grease fittings.</li> </ol>	<p>Type: _____ Material: Chrome _____</p> <p>X Yes No</p> <p>Steel Type :Gr 50 Gauge:3/16 Yield: 50,000</p>	
<ol style="list-style-type: none"> <li>1. Ejector Panel:</li> <li>1. Ejector panel, concaved face sheet design, "Best for Application" 50,000-psi hi-tensile steel.</li> <li>2. Ejection cylinder double acting, 2-stage with packing force of 33,000 lbs.</li> <li>3. Ejection panel face shall be smooth with adequate reinforcing to prevent deformation.</li> <li>4. Ejection panel shall ride on brass or UHMW polyethylene slide bearings for long life and minimum maintenance.</li> </ol>	<p>Thickness: 10 Ga Steel Strength:50,000 psi</p> <p>Force:32,000 psi-lb force @2000 psi s</p> <p>Bearings Material: UHMW Quantity: 2</p>	<p>\$ Incl _____</p>
<ol style="list-style-type: none"> <li>J. Service Hoist System:       <ol style="list-style-type: none"> <li>1. The service hoist lift system shall provide excellent access to truck components located under the trash body</li> <li>2. The service hoist system shall lift the front of the body up above the truck frame rail approximately 36" minimum for access</li> <li>3. The hoist system shall be powered by a 12VDC hydraulic pump with sufficient power to raise a fully loaded trash body.</li> <li>4. The system shall use hydraulic oil from the main hydraulic oil tank.</li> <li>5. A trash body anti-lowering safety pins or legs shall be provided:           <ol style="list-style-type: none"> <li>a. The pin/legs shall lock the trash body preventing lowering of the body.</li> <li>b. The pin/legs shall be sufficient to support 3X's the fully loaded weight of the body Incase truck maintenance is required and the trash load cannot be ejected</li> <li>c. Pin storage in a sleeve, that the pin cannot fall/vibrate etc. out of shall be provided.</li> <li>d. The pin shall be attached to the hoist/trash body/chassis with chain/cable to prevent loss.</li> <li>e. Safety legs shall rest in a saddle to prevent bouncing around.</li> </ol> </li> </ol> </li> </ol>	<p>Yes X No</p> <p>Lift Height @ front: _____ inches</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Safety Factor: _____</p>	<p>\$Exception _____</p> <p>\$Exception _____</p>

K			
K	<p>Hydraulic System: Operate at Standard Low Idle.</p> <ol style="list-style-type: none"> <li>Hydraulic pump transmission mounted "Hot Shift" electrically operated PTO. The pump shall have an automatic pump oil bypass system in normal bypass mode when the hydraulic system is not energized.</li> <li>Hydraulic system shall be Parker Hannifin Corporation designed and certified and use as many as possible Parker components to assure compatibility of the system and 3 year Parker warranty for using a complete Parker system.</li> <li>Hydraulic system shall operate all hydraulic functions at engine low idle speed (750 rpm) and shall not require shifting transmission out of "Drive" gear or applying "Parking" brake. System hydraulic pressure and flow shall not increase above low idle speed, which could encourage an operator to increase engine rpm to try to increase hydraulic performance.</li> <li>Hydraulic pump performance, sufficient pressure and volume at low idle rpm to produce one cycle of the compactor blade at 75% load in less than 26-seconds.</li> <li>Operating pressure, 2,500 psig maximum.</li> <li>Hydraulic valves shall have LED lights on valve coils to aid in troubleshooting the system.</li> <li>The hydraulic pump suction line shall be steel tubing with hydraulic hose sections at both the pump and tank end for vibration isolation. The suction line shall be routed for maximum ground clearance and damage protection. Hose swivel ends shall be used on all connections.</li> <li>Hydraulic cylinders shall:           <ol style="list-style-type: none"> <li>Properly sized to efficiently and continuously perform their function without any cylinder degradation.</li> <li>Cylinders shall have industrial hard chrome piston rods.</li> <li>Main ram cylinder at the rod end shall have a 4" wide mounting.</li> <li>Cylinders shall be fast and easy to remove and replace.</li> </ol> </li> <li>Hydraulic reservoir:           <ol style="list-style-type: none"> <li>Capacity "Best for Application" -gallons minimum</li> <li>Oil level and temperature gauge.</li> <li>Suction and pressure shut-off valves</li> <li>Magnetic drain plug.</li> </ol> </li> </ol>	<p>Pump Make: _____ Model: _____            Mounting Location: <u>Transmission</u>            Make: _____ Model: _____            Pump Operating Speed: 1200 _____ rpm            Pump Output: 12 _____ gpm @ 1200 _____ rpm</p> <p>X Yes No Time: 26 _____ seconds</p> <p>Operating Pressure: 2600 _____ psi            X Yes No</p> <p>X Yes No Suction Line Size: <u>1</u> in dia.            Material: <u>Steel Tube</u></p> <p>X Yes No            X Yes No            X Yes No            X Yes No</p> <p>Hydraulic Reservoir Size: 20 _____ gallons</p>	<p>\$ Incl _____            \$ Incl _____            \$ Incl _____            \$ Incl _____            \$ Incl _____            \$ Incl _____            \$ Incl _____            \$ Incl _____</p>

<p>e. Bung for Future Hydraulic Oil Pre-heater System</p> <ol style="list-style-type: none"> <li>1) Possible future installation bung for an Arctic Fox Hydra Liner H-4000 hydraulic fluid warmer.</li> <li>2) Tank bung shall be schedule 80 2" NPT female thread coupling.</li> <li>3) Bung shall be welded to 0.250" thick 8" dia steel tank reinforcing ring.</li> <li>4) The bottom edge of the tread section of the bung and hydraulic oil pre-heater shall be 1 1/2" off the bottom of the tank.</li> <li>5) The baffles shall be suitable to accept a 24" long heater element and provide a 1" clearance all the way around the element.</li> </ol> <p>10. Hydraulic oil shall be ISO Grade 32 multi-viscosity with a -40°F pour point.</p> <ol style="list-style-type: none"> <li>11. Hydraulic Filtration,       <ol style="list-style-type: none"> <li>a. Pressure line Parker model: WPF 7,000 psig rated with 7-micron absolute tandem type (2 required, 1 per pump)</li> <li>b. Return line replaceable Parker 7-micron absolute with bypass mode indicator light, easy to access for replacement.</li> <li>c. Suction strainer 100-micron</li> </ol> </li> <li>12. Hydraulic system shall maintain oil temperature at no more than 90°F above ambient temperature.</li> <li>13. Hydraulic system test ports shall be provided for each circuit. Test port connections shall be compatible with the Parker Hannifin PD type connector.</li> <li>14. All hydraulic hoses and tubing shall be neatly routed, shielded and secured/supported to prevent chaffing under truck.</li> <li>15. All hydraulic hoses shall be Parker series ST 451 extra-high-abrasion resistant hoses to reduce hose failure from hose cover damage. Hydraulic hoses shall have swivel ends on each end.</li> <li>16. A hydraulic oil recirculation filter system connection system shall be provided with the following:       <ol style="list-style-type: none"> <li>a. The suction and return tubes shall be 1" ID and be installed on the tank top side on each tank end (cross flow) approximately 4" inside the end caps and extending to within 1/4" off the tank bottom at the lowest point.</li> </ol> </li> </ol>	<p>X Yes No</p> <p>X Yes No</p> <p>Make: _____ Model: _____        Pressure Line Filter Rating: _____</p> <p>Make: _____ Model: _____        Return Line Filter Rating: _____        Suction Strainer Size: _____        Yes No</p> <p>Make: _____ Model: _____</p> <p>Yes No</p> <p>Make: _____ Type: _____</p> <p>Tubing Size: _____ inches        Distance of Tank Bottom: _____ inches</p>	<p>\$ Incl _____</p> <p>\$ Incl _____</p> <p>\$ Incl _____</p> <p>\$ Incl _____</p>
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<p>L. Rear Riding Support Handles:</p> <ol style="list-style-type: none"> <li>1. Located in positions that allow riders of various sizes and physical statures to comfortable and safely ride on the rear steps without leaning out away from the handle.</li> <li>2. Handle design shall not interfere with rear operator controls or force the rear riding step passenger to lean out excessively.</li> <li>3. Handle diameter shall be 1-1/4" diameter to allow for good grip.</li> <li>4. Handles shall have durable deep knurled non-slip grip surface and powder epoxy painted "Safety Yellow".</li> <li>5. Handles shall be easily replaceable "bolt-on" design with safety wired or tack welded to prevent loosening.</li> </ol>	<p>Make: _____ Type: _____</p> <p>Yes No</p> <p>Yes No</p>	<p>\$Incl _____</p>
<p>M. Rear Riding Step:</p> <ol style="list-style-type: none"> <li>1. The rear riding shall meet the American National Standard Z245.1-2008 standards.</li> <li>2. Width 8" x 36" long approximate extending to rear of hopper.</li> <li>3. Material steel, open grate grip-strut material.</li> </ol>	<p>Size: 330 Sq_in</p> <p>Step material: Steel Open Grate</p> <p>X Yes No</p>	<p>\$ Incl _____</p>
<p>N. Toolbox:</p> <ol style="list-style-type: none"> <li>1. Mounted underneath right side body,</li> <li>2. Size 36" long x 18" high x 18" deep.</li> <li>3. The door shall be side-mounted bottom hinged.</li> <li>4. The box shall have a flush mount latch/lock assemble.</li> </ol>	<p>Location: Curb Side under body</p> <p>Size: 18 X 18 X 24</p> <p>X Yes No</p> <p>X Yes No</p>	<p>\$ Incl _____</p>
<p>O. Electrical:</p> <ol style="list-style-type: none"> <li>1. All remote electrical inter face connections shall be terminated on stud-type terminal strips or with plug type connectors in a waterproof junction box.</li> <li>2. Connectors/wires shall be permanently and individually labeled.</li> <li>3. Electrical schematics shall be affixed inside the cover of the junction box.</li> <li>4. Dielectric grease shall be applied to all terminals and connectors to prevent corrosion if connector is not waterproof.</li> </ol>	<p>X Yes No</p> <p>Type: Stud Type</p> <p>X Yes No</p> <p>X Yes No</p> <p>X Yes No</p>	<p>\$ Incl _____</p> <p>\$ Incl _____</p> <p>\$ Incl _____</p>

<p>P. Packer Controls:</p> <ol style="list-style-type: none"> <li>1. Located on forward street side of the body:           <ol style="list-style-type: none"> <li>a. Engine speed control.</li> <li>b. Tailgate lock/unlock control.</li> <li>c. Tailgate raise control.</li> <li>d. Ejection control.</li> </ol> </li> <li>2. Packer controls located on curbside of body tailgate:           <ol style="list-style-type: none"> <li>a. Packer controls shall not interfere with rider and shall not pose a catching or snagging of loose clothing possibility.</li> <li>b. Packing control shall not interfere with rider.</li> <li>c. Buzzer driver signal, push button on each side of tailgate.</li> </ol> </li> </ol>	<p>Location: As Specified</p> <table border="0"> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> </table>	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	<p>\$ Incl</p>												
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<p>Q. Grease and Lubrication of Body and Components:</p> <ol style="list-style-type: none"> <li>1. The trash body and all components requiring regular lubrication (1 time per 2 week period) shall be easy to access from the ground or have a central easy to access grease manifold for lubricating all the required lubrication points to include:           <ol style="list-style-type: none"> <li>a. Tailgate hinge points</li> <li>b. Compaction/push-out system</li> <li>c. Cylinder pins</li> <li>d. Rotational bushings, bearings, shafts etc.</li> <li>e. Other areas that require lubrication</li> </ol> </li> <li>2. The grease system shall use steel braided hoses with heavy-duty swivel ends or approved equal lines between the manifold and grease fitting. The system shall assure that all fittings receive the proper amount of lubrication for maximum longevity.</li> <li>3. The damage susceptible grease zerks fittings shall be protected from damage with a guard.</li> </ol>	<table border="0"> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> <tr><td>X Yes</td><td>No</td></tr> </table>	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	X Yes	No	<p>\$ Incl</p>
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<p>R. Vehicle Rear Lights: (No Approved Equals)</p> <ol style="list-style-type: none"> <li>1. All lights shall be Truck-Lite "Lifetime Warranty" 12VDC, LED type, flush mount, sealed lexan body, grommet insulated with Fir N Forget multi-pin plugs where possible.</li> <li>2. Integral Stop/Turn/Tail/ lights mounted in the rear corner post of the dump body model Super 44 P/N 44302R or model 60 P/N 60250R.</li> <li>3. Third Brake Light use the same used light used for Stop/Turn/Tail light and disable the Turn and Tail light sections.</li> <li>4. Back up lights Truck-Lite LED, flush mount, sealed lexan body, grommet insulated, multi-pin units model 44 P/N 44206C.</li> <li>5. Marker lights Truck-Lite LED 3 per side model 10 P/N 10250R or 10250Y or model 30 P/N 30250R or 30250Y.</li> </ol>	<p>Make: Trk Lite Model: N/a</p> <p>Make: Truk Lite Model: 44203R</p> <p>Make: Truk Lite Model: N/a</p> <p>Make: Truk Lite Model: 44206C</p> <p>Make Truk Lite Model: 10-10250R</p>	<p>\$ Incl</p>																						

<p>6. Rear ID bar Truck-Lite LED model 35 P/N 35741R or 35740R.                  7. License plate light, Truck-Lite model 15 P/N 15040                  8. Light bar mounted above the hopper for maximum visibility shall contain 2 stop/turn, 2 tail lights, 2 clear seal beam utility lights (separate cab switch) and one license plate light.                  9. Work lights Two (2) Hopper mount Signal-Stat 623W Halogen work lights with lighted on dash mounted control switch.                  10. Wiring shall be sealed 'Fit' N Forget modular plug-in type where possible.                  11. Lights shall not protrude into rear riders area or be below the hopper in an area 20" in from the outer hopper sides                  12. Dielectric grease shall be applied to all plug connections and terminals to prevent corrosion.</p>	<p>Make: Truck Lite _____ Model: 35740R _____                  Make: Truck Lite _____ Model: 15040 _____                  Make: Signal Stat _____ Model: 623W _____                  Make: Fit n Forget _____ Model: _____</p>	<p>\$ Incl _____                  \$ Incl _____                  \$ Incl _____                  \$ Incl _____</p>
<p>S. Warning Alarm:                  1. Audible when transmission is in reverse or tailgate of body is not fully lowered and locked.                  2. 107 dB, SAE type B, fully sealed, back-up alarm system wired into vehicle's backup light system using OEM plug-in adapter.                  3. The alarm shall be mounted out of the vehicle's rear wheel splash area.</p>	<p>X Yes No                  Make: Velvac _____ Model: n/a _____                  DBa: 107 _____                  X Yes No</p>	<p>\$ Incl _____</p>
<p>T. Mud Flaps:                  1. Rear mud flaps shall be heavy-duty anti-sail type                  2. Front mud flap shall be aluminum shield                  3. Installed front and rear on rear wheels.                  4. Mud flaps shall shield the rear step from road splash</p>	<p>Material: Poly Fenders _____                  Material: Poly Fenders _____                  X Yes No                  X Yes No</p>	<p>\$ Incl _____                  \$ Incl _____</p>
<p>U. Conspicuity Tape:                  1. DOT-C2 Standard No. 108 reflective conspicuity tape.                  2. Tape shall be on both lower sides and rear of the body.                  3. Tape shall be applied in symmetrical pattern from middle of panel outward.</p>	<p>Brand: Avery _____ Model: n/a _____                  X Yes No                  X Yes No</p>	<p>\$ Incl _____</p>
<p>V. Paint Main Body:                  1. Polyurethane paint equal to DuPont Imron 5000, Color "Bright White", 2 coats applied to all non-stainless steel components following manufactures procedures to include:                  2. Preparation to include:                  3. Removing all mill scale and slag.                  4. Variprime 615S self-etching primer or approved equal.                  5. Treating bare metal with manufacturer's conditioners and conversion coatings or approved equal.</p>	<p>Make: PP6 _____ Type: Polyurethane _____                  Color: White _____                  X Yes No                  X Yes No                  X Yes No                  X Yes No</p>	<p>\$ Incl _____</p>

	6. Paint to be applied with all body members painted.	X Yes	No	
W.	Special Tailgate Paint: 1. Polyurethane paint equal to DuPont Imron 5000 ; a. Top ½ of tailgate "Bright White", b. Lower ½ of tailgate and packer panel solid "Safety Yellow" 2. Preparation to include: 3. Removing all mill scale and slag. 4. Variprime 615S self-etching primer or approved equal. 5. Treating bare metal with manufacturer's conditioners and conversion coatings or approved equal. 6. Paint to be applied with all body members painted.	Color: <u>Bright White</u> Color: <u>Safety Yellow</u>		\$ 450.00

Refuse Body Equipment SUB TOTAL COST \$45810.00

**Market Adjusted: \$46,500**

4.8 Sundries Equipment

A.	Description of Equipment	Offered Equipment	Cost
	Stroke Warning Light with brush guard:		
	1. Meeting SAE Class-1 requirements.		
	2. Whelen Model L360 Super LED 360° beacon with branch guard L360BGB, amber (1 required) mounted just below top rear side of tailgate door.	Make: <u>Whelen</u> Model: <u>L360</u>	\$500.00
	3. A dash-mounted switch with light to indicate the beacon is on shall be provided. The switch shall be installed in an easy to see and access position, but not in a location that interferes or could interfere with the driver or passenger during operation or while entering and exiting the vehicle.	Yes No	
B.	Driver Height Warning Sign		
	1. Installed on truck dash providing the travel height of the vehicle.	X Yes No	\$75.00
	2. Sign shall be in 1" "white" block letters.	X Yes No	
C.	Tool Holders:		
	1. Three shovel/broom holders mounted on curb side of body.	X Yes No	\$200.00
	2. Location to be mutually agreed upon at installation.	X Yes No	

Sundries Equipment SUB TOTAL COST \$775.00

4.9 Complete Vehicle Sub Total Cost:

**COMPLETE VEHICLE SUB TOTAL COST  
 VEHICLE+ REFUSE BODY + SUNDRIES**

~~\$46585.00~~

114,170.<sup>00</sup>

4.10 Optional Equipment

Do not include Optional Equipment in the total price of the vehicle; however an equipment price must be provided. The City will determine if the equipment is to be purchased.

A. Description of Equipment	Offered Equipment	Cost
<p>CNG Fuel System:            Engine Option:            1. Cummins VGT turbocharged natural gas engine, rated at 320 hp @ 2,000 rpm, torque 1,000 lb/ft @ 1,300 rpm, 2,200 rpm governed            2. The CNG engine shall meet all required EPA on-highway emissions standards            3. Fuel Tank:                a Fuel tank shall meet or exceed                  1) NFPA 52 standards                  2) US-DOT/FMVSS304                  3) ISO 11439                b Tank Manufacturer                c Tank Information                  1) Tank Construction Type: composite                  2) Service Life Years: 20 years                  3) Recertification Period: 8 years                  4) Type of Recertification Inspection Required                  5) Tank Service Pressure Full: 3,600 psig @ 70°F (21°C)                  6) Each CNG fuel tank shall have a 1/4-turn ball stainless steel shutoff valve mounted at the tank inlet.            4. Tank Installation Location:                1) The CNG tank mounting location shall be mutually agreed upon by the vendor and the City prior to the ordering of the cab and chassis. The vendor shall provide drawing of proposed CNG tank location(s). The locations shall not increase the truck wheelbase or the overall height of the truck and body 12' - 6" or body length over a regular non-CNG configuration:</p>	<p>Make: _____ Model: _____            HP: _____ @ _____ rpm            Torque: _____ @ _____ rpm            Yes No            Yes No            Yes No            Material: _____            Service Life: _____ yrs            Recertification: _____ yrs            Inspection Type: _____ Se            Yes No            CNG Tank (s) Location: _____            _____            _____            _____            _____</p>	<p>\$ _____            \$ _____            \$ _____            \$ _____            \$ _____            \$ _____</p>



<p>a) Tank Size: provide diameter x length          b) Tank Weight each: Empty          c) Quantity of Tanks for 75 gallon DGE          d) Weight All Tanks: Empty          e) Weight All Tanks: Full CNG          f) Tank Enclosure Width, Length, Height          g) Tank Enclosure Material: Steel/Gauge</p> <p>d Tank Mounting:          1) End/dome/ boss, 2-piece saddle mounts on each tank end. The tanks shall be installed inside a steel tank mounting frame. The frame shall be 3" x 1 1/2" x 3/16" tubing. The frame shall be powder coat finished for durability.          2) CNG tank manufacturer 2-point band type CNG bracket with rubber cushion between tank and bracket to prevent slippage and eliminate chaffing, accommodate tank growth by changes in internal pressure.          e The primary tank relief valve (PRD) shall be vented up and away from the vehicle and any ignition sources. The vent shall be protected from rain or vehicle wash water from entering the vent line. The vent line shall be 1/2" diameter minimum.          5. CNG Pressure Reducing Regulator System:          a The pressure reducing regulator system shall be mounted inside a protective steel enclosure no more than 6 ft from the CNG fuel tank.          b From the CNG fuel tank to the regulator the tubing shall be 1/2" od x 0.049" wall 300 series stainless steel minimum.          c The pressure reducing regulator system shall have 2 pressure gauges installed in the system.          1) High Pressure gauge 0-to-5,000 psi installed on tank side to show tank system pressure.          2) Low pressure gauge 0-to-250 psi to show engine downstream fuel delivery pressure to the engine.          3) Gauges shall be stainless steel glycerin filled.</p>	<p>Size: _____ dia x _____ long DEG Net _____ gal          Tank Weight: _____ lbs          # of Tanks: _____ DEG Net _____ gal          Weight all tanks and brackets etc: _____ lbs          Weight All Tanks Full CNG: _____ lbs          Enclosure Size: _____ x _____ x _____          Material: _____ Gauge: _____</p> <p>Yes No          Frame Size: _x_ x _x_ Yes</p> <p>No          PRD Pressure Release: _____ psig</p> <p>Yes No          Tubing Size: _____</p> <p>Yes No          Tubing Size: _____ x _____ Type: _____</p> <p>Pressure Range: _____ to _____ psi          Pressure Range: _____ to _____ psi</p>	<p>\$ _____          \$ _____          \$ _____          \$ _____          \$ _____          \$ _____</p>
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<p>d The engine coolant flow to the pressure reducing regulator shall be minimum of 1 gallon/minute of 180°F coolant per 50 hp of engine output. For coolant flow the heat exchanger for the engine shall be rated at 450 hp to cover engine rating increases after the truck is delivered.</p>	<p>Yes No          Yes No</p>	<p>\$ _____          \$ _____          \$ _____</p>
<p>e Engine coolant flow and CNG fuel supply shall enter the regulator on the same side of the regulator.</p>	<p>Yes No</p>	<p>\$ _____</p>
<p>f Coolant ports shall be oriented vertical (up) in horizontal regulators to prevent air from becoming trapped in the regulator.</p>	<p>Yes No</p>	<p>\$ _____</p>
<p>g The pressure reducing regulator shall not under any circumstance be installed in series with the truck cab heater system.</p>	<p>Yes No</p>	<p>\$ _____</p>
<p>6. Automatic Fuel Shut Off:          a The automatic fuel shut off valve shall be plumbed directly to the exit/warm side of the engine coolant heated pressure reducing regulator.          b The automatic fuel shut off valve shall have its weight supported by a mounting bracket.          c The automatic fuel valve shall have a Cv of 2.0 minimum to assure adequate fuel flow.          d The automatic fuel shut off shall be a NC (normally closed) valve when the ignition is in "Off" position.</p>	<p>Yes No          Yes No          Yes No          Yes No</p>	<p>\$ _____          \$ _____          \$ _____          \$ _____</p>
<p>7. Fuel Lines:          a All high pressure shall be ½" od x 0.049" wall stainless steel 316L tubing appropriate for the application.          b Stainless steel lines shall have thermal expansion/contraction loops for smaller diameter lines and S-bend expansion joints for larger diameter lines.          c All CNG lines shall be supported with stainless steel rubber bushed aircraft P-type clamps. The maximum distance between clamps shall no more than 24".          d Fitting for the CNG fuel system shall be:          1) Stainless steel tube fittings shall be Swagelok or Parker A-lok with thread sealant.          2) Special NPTF pipe fittings shall be stainless steel with thread sealant.</p>	<p>Make: _____ Type: _____          Yes No          Yes No          Yes No          Make: _____ Type: _____          Yes</p>	<p>\$ _____          \$ _____          \$ _____          \$ _____</p>

<p>e All NPT fitting shall be installed on male pipe threads using proper thread sealants.</p> <ol style="list-style-type: none"> <li>1) Thread sealant and anti-seize shall be a nickel impregnated or nickel coated Teflon tape.</li> <li>2) Teflon tape shall start at 2nd thread.</li> <li>3) On 1/2" and under use 2 wraps of tape</li> <li>4) On 5/8" to 1" use 3 wraps of tape.</li> <li>5) Assure last section of tape is pulled down tight against the threads.</li> <li>6) Do not use sealant on compression threads</li> </ol> <p>f Post heat exchanger hoses and lines may be Parker 929 heavy-wall PTFE hose exceeding SAE100R14A or stainless steel tubing.</p> <p>8. Fuel Fill System:</p> <ol style="list-style-type: none"> <li>a The fuel receptacle and fuel fill system shall be rated for both "fast fill" and "slow fill" with a minimum 1/2" od x 0.049" wall 300 series stainless steel.       <ol style="list-style-type: none"> <li>b The fuel fill nozzle:           <ol style="list-style-type: none"> <li>1) Shall be a male NGV1 OPW with rubber protective cover boot</li> <li>2) Fill location on the driver's side of the vehicle</li> <li>3) The fuel filler line shall be plumbed to the CNG tank bank.</li> </ol> </li> <li>c The tank fill enclosure shall have:           <ol style="list-style-type: none"> <li>1) A high pressure line/tank pressure gauge 0-to-5,000 psi</li> <li>2) A low pressure fuel to engine pressure gauge 0-to-250 psi</li> <li>3) An OPW male NGV1 fuel fill receptacle with easy access and excellent clearance for both "fast fill" and "slow fill" receptacles.</li> <li>4) An emergency 1/4-turn shut off valve for shutting down the system in case of a fueling emergency.</li> </ol> </li> <li>d The fuel fill access shall be easy to access and easy for the operator to see for fueling and to prevent drive-off with fuel hose attached.</li> <li>e The fill receptacle shall have an easy to remove/reinstall fuel fill cover to protect the fill port from contamination during truck operation.</li> </ol> </li> </ol>	<p>Yes No</p> <p>Sealant Type: _____</p> <p>Make: _____ Type: _____</p> <p>Yes No</p> <p>Tubing Size: _____</p> <p>Make: _____ Model: _____</p> <p>Fill Location: _____</p> <p>Yes No</p> <p>Pressure Range: _____ to _____ psi</p> <p>Pressure Range: _____ to _____ psi</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p>	<p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p>
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<p>9. CNG Filtration:</p> <p>a High pressure, on the fuel tank(s) fill line to clean the CNG before it enters the fuel tank storage system.</p> <p>b Low Pressure, on the downstream "low pressure" post regulator engine delivery side. The "low pressure" filter shall be a Fleetguard spin-on NG5900 with liquid drain or approved equal.</p> <p>10. Fuel Gauge:</p> <p>a An electric fuel gauge shall be provided with easy to see vehicle dash gauge to show fuel tank volume.</p> <p>b The fuel sender shall be a sealed unit mounted to the high-pressure tank system</p> <p>c A sealed 3-pin Weatherpak connector with a 1-amp fast blow automotive fuse shall connect the sender to the gauge.</p> <p>d Pins are:      1) Red = power      2) Green = signal      3) Black = ground</p>	<p>Make: _____ Model: _____</p> <p>Make: _____ Model: _____</p> <p>Fuel Gauge Type: _____</p> <p>Make: _____ Model: _____</p> <p>Yes No</p> <p>Yes No</p> <p>Yes No</p> <p>Provide Specs: _____</p>	<p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p>
<p>B. Sign Boards, Two body mounted Roadway Displays Inc. (909.587.0207) mobile display systems shall be provided to include:</p> <p>1. Frame model SS315955 95-1/2" long x 31-1/2" high x 2-1/4" frame width with .025" aluminum backing.</p> <p>2. Frame material, 6463-T6 aluminum extrusions with satin anodize.</p> <p>3. Sign panel size 93-3/16" x 29-3/16" x .060" high impact styrene. View size 91" x 27".</p> <p>4. Sign frame shall be securely mounted to body yet be easy to remove and replace. The flat sign face shall have a steel sub frame to attach it to the body and branch deflectors shall fill the void between the sub frame and the body.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>\$ _____</p>
<p>C. Spare Tire and Wheel:</p> <p>1. Tire and wheel assembly: 1 per vehicle.</p> <p>2. Tire: Michelin XZY-3, Steer Tire, 11R22.5</p> <p>3. Wheel: Size 22.5" x 8.25", disc, 10-hole, hub plotted type, single nut, meeting ISO Standard 4107. "White" powder epoxy coated finish.</p>	<p>Make: _____ Model: _____</p> <p>Make: _____ Model: _____</p>	<p>\$ _____</p>

<p>D. Remote High-Quality Color Safety 2 Camera System:</p> <ol style="list-style-type: none"> <li>1. Cameras (2 required) color, ECCO Gemineye K7000Q system with camera view selection on the TV monitor face (No Approved Equal:       <ol style="list-style-type: none"> <li>a. Rear of vehicle mounted camera wired into vehicle reverse circuit to automatically turn on when vehicle is shifted into reverse:</li> <li>b. Right side camera to serve as an auxiliary right rear view mirror function to augment the right rear view mirrors. The camera shall be normally on viewing the right side of the vehicle. It shall automatically switch to rear of vehicle view when the transmission reverse gear function is activated. An over-ride to keep the right side camera on shall be provided for special situation use. Camera shall be as small as possible and protected from tree branch damage.</li> </ol> </li> <li>2. Camera color ECCO model C2001 with automatic shutter (2) required:       <ol style="list-style-type: none"> <li>a. Camera shall be in water proof cast aluminum housing. Housing shall be able to be pressure washed when washing vehicle.</li> <li>b. Camera shall have built in safety audio system that will pick up and broadcast normal conversation to monitor.</li> <li>c. Camera shall be automatically heated for cold weather operation.</li> <li>d. Resolution 380 TV lines horizontal.</li> <li>e. Signal to noise ratio 44dB minimum.</li> </ol> </li> <li>3. Monitor LCD, 7" flat screen ECCO model M7000Q with:       <ol style="list-style-type: none"> <li>a. Monitor shall be in a very easy to see location on the dash next to the "A" pillar that requires as little as possible head movement and also with a little as possible front windshield obstruction. The monitor location shall be mutually agreed upon.</li> <li>b. Camera view selection switches on the TV monitor and trigger wires via power cable.</li> <li>c. Automatic day/night dimmer sensor</li> <li>d. Resolution 291,000 pixels or better.</li> <li>e. Picture control to include brightness, contrast and image.</li> <li>f. Speaker system to broadcast sound from camera.</li> <li>g. Picture shall be crisp and clear at all times.</li> <li>h. Anti-glare sun shield and hood model A7000SS.</li> <li>i. Swivel mounting bracket.</li> </ol> </li> </ol>	<p>Make: Ecco _____ Model: 7000Q _____</p> <p>X Yes No</p> <p>X Yes No</p> <p>Make: Ecco _____ Model: C2001 _____</p> <p>Quantity: 2 _____</p> <p>X Yes No</p> <p>X Yes No</p> <p>Resolution: 380 TV _____ lines</p> <p>Make: _____ Ecco _____ Model: M7000Q _____</p> <p>X Yes No</p> <p>Make: Ecco _____ Model: A7000SS _____</p> <p>X Yes No</p>	<p>\$Incl. _____</p> <p>\$Incl. _____</p> <p>\$Incl. _____</p> <p>\$Incl. _____</p> <p>\$Incl. _____</p>
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<p>j. Automatic dimmer sensor to adjust for day and night viewing.          k. Monitor capable of accommodating 2 cameras.          4. All wiring shall be totally sealed with sealed locking connections to prevent corrosion.          5. All wiring shall be routed to prevent damage to the wiring.          6. Warranty 2 years with replacement of failed components with new components shipped UPS "Next Day" upon notification of problem.</p>	<p>X Yes No          X Yes No          X Yes No          X Yes No          X Yes No          Warranty: 2 _____ years          X Yes No</p>	<p>\$ _____</p>
<p>E. Inspection Trip:          1. The City and County of Denver reserves the right to inspect at the body fabricating plant the first (1st) article prior to paint and delivery.          2. Where the fabricating plant is located further than 200 road-miles from the City and County of Denver, the bidder shall include in the bid price all travel expenses to the fabrication plant for the inspection.          3. The City may select to send from 2 representatives to inspect the 1<sup>st</sup> article. The provided costs shall be based on one (1) person per day and the City will determine how many representatives the inspection will require and how many days the inspection will require.          4. Inspection Trip Costs to include:              a. Air fare per person:              b. Surface transportation costs:              c. Lodging per person per day:              d. Meals per person per day:          5. Total cost per person for 1st article inspection trip:</p>	<p>Provide information:          Distance to fabrication plant: 1200 _____ miles          Plant Location: Norway, Michigan _____          Air Fare: \$ 550.00 _____, Airline: Delta _____          Surface Transportation: \$100 _____, Mode: Rental _____          Lodging / day: \$ _____          Hotel: 150.00 _____ Meals / day: \$ 100.00 _____</p>	<p>\$550.00 _____          \$100.00 _____          \$ _____          \$250.00 _____          \$900.00 _____</p>

Manuals/Equipment

Item	Description of Equipment	Offered Equipment	Cost
Training Video	One DVD or CD demonstrating and explaining the safe and proper use of the vehicle/equipment. 1. Cab and chassis. 2. Equipment and Body.	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	\$ _____ \$Incl _____
Operators Manual Paper	One book per vehicle/equipment with "safe equipment operation" section for each component. 1. Cab and Chassis. 2. Equipment and Body.	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	\$ <u>ney</u> \$Incl _____
Service/Repair/Maintenance Manual Paper	Two complete sets per Contract (not per vehicle); binder required. A. Manuals shall be provided for: A. Cab and chassis B. Equipment and body B. Manuals shall include complete and detailed information for maintenance of the equipment, including general information, specifications, troubleshooting guide, lubrication and required adjustments. C. The hydraulic and electrical sections of the manuals shall be provided in a separate electrical/hydraulic binder. Both the hydraulic and electrical circuits shall have separate color coded schematics for each equipment function to show the flow of both electrical current and hydraulic oil.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	\$ <u>500</u> \$Incl _____
Service/Repair/Maintenance Manual on CD rom or DVD	One complete set, per Contract (not per vehicle) 1. Manuals shall be provided for: A. Cab and chassis B. Equipment and body 2. Manuals shall include complete and detailed information for maintenance of the equipment, including general information, specifications, troubleshooting guide, lubrication and required adjustments.	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	\$ _____ \$Incl _____

	<p>3. The hydraulic and electrical sections of the manuals shall be provided in a separate electrical/hydraulic binder. Both the hydraulic and electrical circuits shall have separate color coded schematics for each equipment function to show the flow of both electrical current and hydraulic oil.</p> <p>4. New CD roms or DVDs shall be provided when information is updated, superseded or changed.</p>	<p><input checked="" type="radio"/> Yes    <input type="radio"/> No</p> <p>Yes    <input checked="" type="radio"/> No</p>	<p>\$Incl _____</p>
<p><b>Service/Repair/ Maintenance Manual on Internet Access, or Other Electronic Media</b></p>	<p>One complete set; per Contract (not per vehicle)</p> <p>1. Vendor shall provide access to the site for the length of time that the City owns the vehicle/equipment at a one time up front cost to the City.</p> <p>2. Internet information shall include complete and detailed information for maintenance of the equipment, including general information, specifications, troubleshooting guide, lubrication and required adjustments.</p> <p>3. The hydraulic and electrical sections of the manuals shall be provided in a separate electrical/hydraulic binder. Both the hydraulic and electrical circuits shall have separate color coded schematics for each equipment function to show the flow of both electrical current and hydraulic oil.</p>	<p>Yes    <input checked="" type="radio"/> No</p> <p>Yes    <input checked="" type="radio"/> No</p> <p>If other Specify: _____</p> <p>Yes    <input checked="" type="radio"/> No</p>	<p>\$Incl _____</p>
<p><b>Parts Manual Paper</b></p>	<p>Two complete sets, per Contract (not per vehicle) binders required,</p> <p>1. Manuals shall be provided for:</p> <p>A. Cab and chassis</p> <p>B. Equipment and body</p> <p>2. Illustrated parts book shall be furnished containing data so that part numbers can be readily found for each system.</p>	<p><input checked="" type="radio"/> Yes    <input type="radio"/> No</p> <p>Yes    <input type="radio"/> No</p> <p>Yes    <input type="radio"/> No</p>	<p>\$500        \$Incl _____</p>



<p><b>Parts Manual on CD rom or DVD</b></p>	<p>One complete set, per Contract (not per vehicle) illustrated parts book shall be furnished containing data so that part numbers can be readily found for each system.</p> <ol style="list-style-type: none"> <li>Information shall be provided for:           <ol style="list-style-type: none"> <li>Cab and chassis</li> <li>Equipment and body</li> </ol> </li> <li>Parts manuals shall include complete and detailed information for replacement parts for the equipment, including general information, specifications ordering guide lines and superseded parts information.</li> <li>New CD roms or DVDs shall be provided when information is updated, superseded or changed.</li> </ol>	<p>Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>\$ <u>500</u></p> <p>\$Incl _____</p>
<p><b>Parts Manual on Internet Access, or Other Electronic Media</b></p>	<p>One complete subscription; per Contract (not per vehicle)</p> <ol style="list-style-type: none"> <li>Internet information shall allow the City 24 hour 7 days/week including holidays access from its main maintenance facility and all its satellite maintenance facilities.</li> <li>Internet information shall include complete and detailed information for parts for the:           <ol style="list-style-type: none"> <li>Cab and Chassis</li> <li>Equipment and Body</li> </ol> </li> <li>Internet information shall cover vehicle/equipment, shall include general parts information, parts specifications, ordering guide lines and superseded parts information.</li> <li>Vendor shall provide access to the site for the length of time that the City owns the vehicle/equipment at a one time up front cost to the City.</li> <li>Parts manuals shall include complete and detailed information for replacement parts for the equipment, including general information, specifications ordering guide lines and superseded parts information.</li> </ol>	<p>Access Information:        7 days/week including holidays      Yes <input checked="" type="checkbox"/> XNo <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If other Specify: _____</p> <p>No site available at this time _____</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>\$ _____</p> <p>\$Incl _____</p>

<b>New Equipment Check-in Form:</b>	The successful vendor shall complete the City's "New Equipment Check-in Form" completely and accurately with all requested information.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	\$Incl _____
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**5.1 Operator and Mechanics Training**

Item	Description of Equipment	Offered Equipment	Cost
<b>On Site Equipment Manufacturers Training</b>	On site the vendor shall insure that the equipment manufacturers training representative, after delivery of the equipment Contacts Fleet Maintenance training manager to coordinate equipment training.	yes - 1 day	\$Incl _____
<b>Fleet Maintenance Training Manager</b>	Charlie Pletcher, Telephone: 720.865.4151 Contact time: 8:00 am to 3:00 pm M-F		
<b>Training Requirements</b>	Training shall consist of factory training materials, classroom and actual field training on the equipment for the equipment operators and supervisors.		\$Incl _____
<b>On Site Mechanics Training</b>	On site mechanics training shall be 1 class, approximately 4 hours, 1 shift total provided at City facilities. The training shall cover maintenance and service procedures, trouble shooting and use of manuals and CNG operations.	P500 - truck	\$Incl _____ 500

**6.0 Repair Parts Delivery**

<b>Repair Parts delivery</b>	
<b>A</b>	<p><b>Prime Vendor</b> is to indicate current Master Purchase Order agreement(s) in place with the City. (Example 0667A0108):</p> <p>If no agreement(s) exists, is your company willing to enter into long-term Master Purchase Order Agreement(s) in order to supply parts and components for the equipment and manufacturers proposed herein? YES OR NO</p>
<b>B</b>	<p><b>Sub-Vendor</b> is to indicate current Master Purchase Order agreement(s) in place with the City. (Example 0298A0609):</p> <p>If no agreement(s) exists, is your company willing to enter into long-term Master Purchase Order Agreement(s) in order to supply parts and components for the equipment and manufacturers proposed herein? YES OR NO</p>

Vendor/Sub Vendor: *Harbor City* EMD 0667A0108 EXHIBIT

7.1  
 7.2  
 Warranty  
 Warranty Requirement

WARRANTY (Table 1)

		Complies (Y or N/A)
A.	Express warranty is to be the standard factory warranty but no less than 12 months or 36,000 miles. The standard factory warranty plan shall be provided as an attachment to your bid proposal	Yes
B.	The Warranty shall include at no cost to the City of Denver, all parts and labor, and no charge for work performed at the vendor's facility and for field service work.	Yes
C.	Warranty shall start when the City places the vehicle into service and <u>NOT</u> on the delivery date.	Yes
D.	Primary vendor shall provide warranty information for engine, transmission, chassis, electronics, body and other major components for cab and chassis built vehicles. This provision is not applicable to OEM (Original Equipment Manufacturer) factory completed light-duty vehicles.	Chassis
E.	Options listed shall be bid and provided as factory installed under the terms of the full factory-backed warranty. This includes, but is not limited to: air conditioning, radios, cruise control, bumpers, towing packages etc. Dealer-installed options will not be permitted unless pre-approved by the City in writing and, where applicable, indicated on bid sheet as a "dealer installed" non-factory item.	Chassis
F.	Bidder will be responsible for the warranty repair of all installed options/auxiliary equipment included in the bid that has a standard warranty that is less than the standard warranty for the base vehicle/equipment. All warranties shall be equal to the manufacturer's warranty or not less than twelve (12) months, whichever is greater.	Yes
G.	Bidder shall use a single, local factory authorized dealership that will accomplish or coordinate required warranty work. The dealership must have a minimum of 1-year experience as a factory authorized vendor for like equipment being bid. Warranty parts shall be available and supplied within 24 hours. When warranty parts are not in stock, causing the vehicle to be down more than 3 working days, those required parts shall be air freight shipped at the vendor/manufacturer's expense	Yes
H.	If applicable, bidder shall provide a plan for the City to be reimbursed if the work can be done by the City on site. The current shop rate is \$75.00/hour, not to exceed \$85.00/hour. (Enter a response of N/A if not available)	Yes
I.	The bidder shall respond to request for warranty assistance within twenty-four (24) hours.	Yes
J.	Warranty work shall be accomplished within an appropriate length of time (generally less than 3 working days for everything other than major component repair such as an engine rebuild, transmission rebuild major structural integrity modification etc. and shall be coordinated with an authorized City representative. Major component repairs shall be accomplished in no more than two weeks and shall be coordinated with an authorized City representative. [Any work not completed within two weeks after delivery of the vehicle will extend the term of the warranty one day for each day in excess of the two week repair period.]	Yes
K.	During the entire warranty period, if the unit requires transportation to a repair facility, the vendor/sub-vendors shall be responsible for all transportation at "NO COST" to the City and County of Denver. This includes transporting the unit back to the City's domicile location after repairs are complete. If an alternate is bid, charges to the City of Denver shall be listed (e.g. mileage, travel, labor, etc.). Even if an alternate is bid, IN NO CIRCUMSTANCES will the City and County of Denver be responsible for transporting a unit greater than 25 miles from the center of Denver. For purposes of these warranty provisions, the center of Denver is defined as the City and County Building located on the corner of Colfax and Bannock Street.	Yes

L.	<p>The item(s) procured by the City pursuant to this Bid Proposal shall, in addition to being subject to the express warranties referenced above, be subject to all implied warranties arising by operation of State and Federal law, including but not limited to the implied warranty of merchantability and, to the extent applicable, the implied warranty of fitness for a particular purpose arising under the Colorado Uniform Commercial Code, Title 4, Colorado Revised Statutes. The bidder shall in no event attempt to limit or disclaim any implied warranties under this Bid Proposal, and any attempt to do so will render the bidder's bid non-responsive under this Bid Proposal. Additionally, any attempt by the bidder to alter the warranties stated herein after the City has accepted a bid, such as in a receipt for goods delivered, shall be void and of no legal effect. The bidder shall explicitly state and acknowledge this condition in its bid response.</p>	Yes
M.	<p>This warranty in Table 1 and Table 2, is IN ADDITION to factory warranties on the vehicle and components</p>	

7.3

**Fleet Defects**

**Fleet Defects (Table 2)**

A.	<p><b>Definition:</b> If during the warranty period, thirty percent (30%) of the total number of units delivered have the same part(s) and/or components failure requiring replacement and/or modifications, caused by defects in Structural Integrity, Design, Material, and/or Workmanship or affecting safety, then this "Fleet Defect Clause" goes into effect.</p>
B.	<p><b>Remedy:</b> Following notification of a Fleet Defect, the vendor shall develop and implement a plan that either reengineers, modifies, or replaces the defective parts/ systems, such that the identified problem is cured and the operation of the vehicle/equipment is not altered. When alterations are required to cure the defect, those alterations that change or modify the original bid specifications must be approved by the City and County of Denver prior to execution. The vendor will pay for all necessary labor and materials to repair, modify, and/or "update" all vehicles/units in this group. The vendor shall also propose a work schedule that is mutually agreed upon by the City of Denver that corrects the fleet deficiency within 30 days or a mutual agreed upon schedule.</p>
C.	<p><b>Exceptions:</b> Fleet defects will not apply to minor aftermarket accessories specified by the City of Denver and installed per instructions/specifications. Examples include: toolboxes, spotlights, bed-liners, etc.</p>
D.	<p><b>Mitigation:</b> Should the vendor become non responsive to the City's notification of a Fleet Defect, the City may employ several options.        (1) After notifying the vendor in writing of the City's intent to mitigate its circumstances, the City may choose to perform its own warranty work and shall be entitled to reimbursement for both parts and labor.        (2) On major components, such as engine, transmission, air conditioning, etc., the City may choose to have the repairs performed by an authorized dealer and vendor shall reimburse the City for any parts or labor not covered by other warranty.</p>
E.	<p><b>Outside Metro-Denver:</b> Vendor will pay for all transportation costs if unit(s) must be sent out of the Denver area for repairs. The City and County of Denver reserves the right to inspect unit(s) before returning back to Denver. The City and County of Denver also reserves the right to send at least one employee, without cost to the City, to inspect the repair(s) before unit is released back to the City.</p>
F.	<p><b>Expired Warranties:</b> Units that have mutually agreed upon warranty defects during the warranty period will continue to be repaired until completed. If repairs continue past the warranty expiration date the repairs will continue as part of the warranty until completed or cease at a time agreed upon by the vendor and the City.</p>

7.4

Warranty Options

Warranty Options		WARRANTY Options (Table 3) Class 7 & 8 Vehicles		
Cost of Factory Extended Warranties		Please indicate in the columns below the additional cost of an extended warranty for all applicable components listed in the left hand column.		
		Inc = Included	N/A = Not available	
		Two Years	Three Years	Five Years
A.	Cab and Chassis			
B.	Engine	650	1550	N/A
C.	Transmission	incl	1200	2225
D.	Drive Train	incl	incl	875
E.	Suspension	incl	incl	1150
F.	Air Conditioning	100	300	850
G.	Hydraulics			N/A
H.	a. Pumps	Included	N/A	N/A
	b. Cylinders	Included	Included	Included
	c. Tanks	Included	N/A	N/A
	d. Valves	Included	N/A	N/A
I.	Attached Body	Included	N/A	N/A
J.	Electrical Components	Included	N/A	N/A
K.	Camera System	Included	N/A	N/A
L.	Other	Included	N/A	N/A
M.	Notes:			

**7.5 Warranty Service Locations:** Warranty repair parts and service shall be available locally at an established factory authorized dealership meeting requirements of Table 1 Section 7.

**A. Cab & Chassis:**  
 Dealership Name: Mike Konwerski Telephone #: 766-941-0833  
 Street Address: 7007 Sanderson Pt. City: Denver Co. 80210

**B. Rear Loader Trash Body:**  
 Dealership Name: HardLine Equipment Telephone #: 303-500-2176  
 Street Address: 7500 Dahlia Street City: Commerce City

**C. Sundries**  
 Dealership Name: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 Street Address: \_\_\_\_\_ City: \_\_\_\_\_

**8.0 Heavy Duty Vehicle Delivery Documentation:**

Delivery Documentation (GVWR 26,000-Lbs and Above Heavy Duty)	
<b>A. Vehicles ordered under this specification shall be complete and delivered to CITY AND COUNTY OF DENVER, Fleet Management Division.</b> All prices quoted must be quoted at a firm price F.O.B. Denver, Colorado, 5440 Roslyn St. Building C.	
<b>B. Vendor shall supply at acceptance and delivery of vehicle.</b>	
<ol style="list-style-type: none"> <li>1. Bill of Sale (aka invoice, buyers order)</li> <li>2. Original MSO (Manufacturers Statement of Origin)</li> <li>3. Application for Title and/or Registration, Colorado Dept of Revenue form DR2395 (02-22-11)</li> <li>4. Odometer Disclosure Statement, Colorado Dept of Revenue form DR2407 (09-07-05)</li> <li>5. Letter of Certification on Vendor Letterhead (Required for Incomplete Vehicles) with added bodies etc, describes the final configuration of the vehicle)</li> <li>6. Air Brake inspection form required for any vehicle with air brakes or truck units capable of towing trailers greater than 10,000-Lbs</li> <li>7. Standard Sales Tax Receipt.</li> <li>8. DOT inspection form.</li> <li>9. Temporary License Plate.</li> <li>10. New Equipment Check-in Form/ Vendor Supplied Information on the Vehicle. Form provided by Fleet contact Dolores @ 720.865.3903</li> <li>11. Copy of City Purchase Order.</li> <li>12. All Keys ordered for the Vehicle and Sundries, i.e. toolboxes etc.</li> <li>13. All Manuals repair, parts, owners and/or CD's/DVD's etc</li> <li>14. Vehicle Warranty information and receipt for optional warranty.</li> <li>15. Receipts and Warranty information for vendor installed/supplied components (lift gates, snowplows, lighting equipment etc)</li> </ol>	
<b>C. For an "Incomplete Vehicle" (cab &amp; chassis) add the following:</b>	
<ol style="list-style-type: none"> <li>1. Verification of Vehicle Identification Number (VIN), Colorado Dept. of Revenue form DR2087.</li> <li>2. Statement of Fact for incomplete vehicles with added bodies etc, describes the final configuration of the vehicle.</li> <li>3. Original weight slip.</li> </ol>	

D. **Delivery:**  
 Monday through Friday between 8:00am and 1:00pm.  
 Location: CITY AND COUNTY OF DENVER  
 Fleet Management  
 5440 Roslyn St. Building C  
 Denver, CO 80216  
 Contact person to coordinate delivery: Dolores Gallegos at (720) 865-3900 ext. 03 or direct line (720) 865-3903.

9.0 Vehicle Delivery  
 91 Delivery of Cab and Chassis to Body Vendor

PROVIDE NUMBER OF DAYS REQUIRED FOR DELIVERY OF CAB AND CHASSIS AFTER PURCHASE ORDER IS ISSUED TO BODY VENDOR	20	DAYS
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9.2 Delivery of Completed Truck with Body Installed to City and County of Denver

PROVIDE NUMBER OF DAYS REQUIRED FOR DELIVERY OF COMPLETE VEHICLE AFTER CAB AND CHASSIS IS DELIVERED	90	DAYS
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10.0 Complete Vehicle Cost

Include: <input type="checkbox"/> Cab & Chassis Total Cost <input type="checkbox"/> Rear Loader Body Total Cost <input type="checkbox"/> Sundries Items Total Cost Do Not Include: <input type="checkbox"/> Optional Equipment <input type="checkbox"/> Warranty Cost (s) <input type="checkbox"/> Manual Cost (s)	ONE COMPLETE VEHICLE TOTAL COST  Authorized Signature: <i>BJ</i>	\$ 114,120
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s:\bid information\ bids one\time\7063e front loader and small rear loader refuse trucks\7063\_conf#2\_12-078,079\_.docx

Cab and Chassis: \$67,341.19  
 +\$2000 (Frame Adjustment)  
 Refuse Body: \$46,500  
 Sundries: \$775  
 Total: \$116,616.90

Reference Nos: 12-078, 12-079  
 Vendor/Sub Vendor: *Handline Equip*  
 CCD\_PO\_PWORKS\_85FA\_EXHIBIT

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies, LLC-1 Kansas City 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : ZURICH AMERICAN INSURANCE COMPANY		
INSURED 1012261 COLORADO KENWORTH, INC. 11120 TOMAHAWK CREEK PARKWAY LEAWOOD KS 66211	INSURER B : American Zurich Insurance Company	40142
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

**COVERAGES MURHO02 CERTIFICATE NUMBER: 11388655 REVISION NUMBER: XXXXXXXX**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC	Y	N	*GP654926304	8/1/2013	8/1/2014	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ XXXXXXXX PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	Y	N	GP654926304.	8/1/2013	8/1/2014	COMBINED SINGLE LIMIT (Ea accident) \$ 5,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX AGGREGATE \$ XXXXXXXX \$
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WC9261256-06	8/1/2013	8/1/2014	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	GARAGEKEEPERS	N	N	GP654926304	8/1/2013	8/1/2014	\$2,000,000 LIMIT; \$5,000 DED/ \$35,000 MAX

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)**  
 THIS CERTIFICATE SUPERSEDES ALL PREVIOUSLY ISSUED CERTIFICATES FOR THIS HOLDER, APPLICABLE TO THE CARRIERS LISTED AND THE POLICY TERM(S) REFERENCED.  
 \*GENERAL LIABILITY AND AUTO LIABILITY ARE WRITTEN ON A GARAGE LIABILITY FORM. CITY AND COUNTY OF DENVER, ITS ELECTED AND APPOINTED OFFICIALS, EMPLOYEES AND VOLUNTEERS IS LISTED AS AN ADDITIONAL INSURED WITH REGARDS TO THE COMMERCIAL GENERAL LIABILITY POLICY AND THE BUSINESS AUTO LIABILITY POLICY ONLY AS IT RELATES TO THE FOLLOWING UNITS: 3BKJHM6X3EF580576 AND 3BKJHM6X8EF580577.


**CERTIFICATE HOLDER**

**11388655**  
 CITY & COUNTY OF DENVER  
 PURCHASING DIVISION  
 201 W. COLFAX AVENUE  
 DEPT. 304  
 DENVER CO 80202

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE





**Contract Control Number:**

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

**CITY AND COUNTY OF DENVER**

ATTEST:

By \_\_\_\_\_

\_\_\_\_\_

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By \_\_\_\_\_


By \_\_\_\_\_

By \_\_\_\_\_



**Contract Control Number:** PWADM-201414665-00

**Contractor Name:** Colorado Kenworth, Inc.

By: 

Name: SCOTT A. LOCKHART  
(please print)

Title: Branch Manager  
(please print)

**ATTEST: [if required]**

By: \_\_\_\_\_

Name: \_\_\_\_\_  
(please print)

Title: \_\_\_\_\_  
(please print)

