

## BID OPENING DATE AND TIME

On: June 27, 2014

AT: 10:30 A.M.

BID NO. <b>S5YQ0640</b>	PAGE <b>1</b> OF <b>20</b>	INVITATION AND BID <b>ADVERTISED</b>	BIDDER MUST COMPLETE BELOW
This Invitation to Bid with your quotations must be received prior to the above cited bid opening date and time.			BIDDER AGREES TO COMPLY WITH ALL CONDITIONS OF THIS BID. UNSIGNING BIDS WILL NOT BE ACCEPTED.
DEPARTMENT <b>OFM</b>	DIVISION <b>Vehicle Purchase</b>	  <b>CITY OF PHILADELPHIA PROCUREMENT DEPARTMENT MUNICIPAL SERVICES BLDG. 1401 J FK BLVD, ROOM 170A PHILADELPHIA, PA 19102-1685</b>	NAME AND ADDRESS OF FIRM
AWARDED			Federal EIN/Social Security Number
DATE	FOR THE PROCUREMENT COMMISSIONER		<b>BUYER: J. Manton S. Justice</b>
TITLE OF BID: <b>Tiller Ladder- 100' Tractor Drawn Aerial Apparatus</b>			

## GENERAL INFORMATION

This Invitation to Bid and Contract is issued under the Antidiscrimination Policy described in the Mayor's Executive Order 03-12.

While there are no ranges for the participation of Minority (MBE), Woman (WBE) or Disabled (DSBE) Owned Business Enterprises (collectively, M/W/DSBEs) projected for this Bid, bidders are prohibited from discriminating in their selection of subcontractors and are encouraged to use their Best and Good Faith Efforts to solicit quotes from M/W/DSBEs on an equitable basis with other firms. See the Office of Economic Opportunity (OEO) Instructions and Form which is part of this Invitation to Bid and Contract.

## BID QUESTIONS

All questions concerning this Invitation to Bid, including specifications and conditions, must be presented prior to the bid opening date and time. Contact Procurement Department Customer Service by emailing [Bid.Info@phila.gov](mailto:Bid.Info@phila.gov) or by calling (215)686-4720 with questions.

## BID SECURITY

When applicable, BIDDERS MUST SUBMIT BID SECURITY.

## BID SIGNATURE

**BIDDERS MUST SIGN  
PAGE 9 OF THE  
"TERMS AND CONDITIONS".**

### For City Use Only

BID SECURITY See Conditions of Bidding	MASTER BID SECURITY		CERTIFIED CHECK SUBMITTED WITH BID	
	<input type="checkbox"/> YES	<input type="checkbox"/> NO	AMOUNT	CHECK NUMBER

**CITY OF PHILADELPHIA  
OFFICE OF ECONOMIC OPPORTUNITY  
ANTIDISCRIMINATION POLICY- MINORITY, WOMAN AND DISABLED OWNED  
BUSINESS ENTERPRISES  
INSTRUCTIONS AND FORM  
(SEALED BID CONTRACTS)**

Under the authority of Executive Order No. 03-12, the City of Philadelphia has established an antidiscrimination policy (“Policy”) relating to the participation of Minority (MBE), Woman (WBE) and Disabled (DSBE) Owned Business Enterprises in City contracts. Executive Order 03-12 is administered by the City’s Office of Economic Opportunity (“OEO”).

The purpose of this Policy is to provide equal opportunity for all businesses and to assure that City funds are not used, directly or indirectly, to promote, reinforce or perpetuate discriminatory practices. The City is committed to fostering an environment in which all businesses are free to participate in business opportunities without the impediments of discrimination and participate in all City contracts on an equitable basis. In accordance with the contracting requirements of the City, the City’s Policy is applicable to this Invitation and Bid (hereinafter, “Bid”).

For this Bid, the City has not established ranges for the participation of MBEs, WBEs and/or DSBEs (collectively, “M/W/DSBEs”), but bidder is encouraged to exercise Best and Good Faith Efforts to include M/W/DSBEs in this bid and in bidder’s supply chain. “Best and Good Faith Efforts” are those efforts, the scope, intensity and appropriateness of which are designed and performed to achieve meaningful and commercially useful participation by M/W/DSBEs. An OEO Certification Registry of M/W/DSBEs is maintained by the OEO and is available online at [www.phila.gov/OEO/directory](http://www.phila.gov/OEO/directory). Firms owned and controlled by minority persons, women or disabled persons, which are certified as MBE, WBE, DSBE or DBE by an approved certifying agency, including the Pennsylvania Unified Certification Program, may apply to the OEO for listing in its OEO Certification Registry.

Bidder is also encouraged to identify below, any M/W/DSBEs that will be used by bidder if successful:

Company Name	Address	Certification Status (MBE, WBE or DSBE)	Type of Work/Supply Effort
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<b>INVITATION AND BID</b> Continuation	CITY OF PHILADELPHIA <b>PROCUREMENT DEPARTMENT</b> PHILADELPHIA, PA 19102 - 1685	BID NUMBER <b>S5YQ0640</b>	PAGE OF <b>2 20</b>
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**SECTION 1: GENERAL BID SUBMISSION**

1.1 TITLE: Tiller Ladder

1.2 CONTRACT TERM: 7/1/14 to 6/30/15 ("Initial Term"), with an option to renew for up to THREE (1) additional ONE (1) year periods, ("the Renewal Term") exercisable, at the City's sole discretion, as of the expiration of the Initial Term or the current Renewal term. The City may, at its sole discretion, renew the contract for up to three (3) months at the beginning of each renewal period(s) (the "Additional Performance Period"), if a decision has been made not to renew the contract for an entire year.

1.2.1 The City shall exercise such sole option to renew the Contract Term by issuing a letter (the "Renewal Notice") notifying the Contractor that the Contract is renewed for the Renewal Term or Additional Performance Period (identified by commencement and termination dates) that is specified in the Renewal Notice. The Contract shall be deemed to be renewed for such Renewal Term or Additional Performance Period, and Contractor shall be obligated to perform all terms and conditions of the Contract throughout such Renewal Term or Additional Performance Period, as of the effective date indicated on the City's Renewal Notice, whether or not Contractor has agreed, verbally or in writing, to such renewal of the Contract term.

1.2.2 If an individual Performance Bond and/or Payment Bond is required under this Invitation and Bid, such bond(s) shall be and remain in full force and effect throughout the Initial Term, all Renewal Terms, any Additional Performance Period, and the period of any unexpired warranty provided or required under the Contract, without notice of Contract renewal by the City to the surety or the consent of the surety thereto. It is the sole responsibility of the Contractor to ensure that such bond(s) remain in full force and effect as provided in this Section 1.2.2, and failure to do so shall be an event of default pursuant to Section 19, Default, of the attached Terms and Conditions of Bidding and Contract.

If participation in the City's Master Performance Security Program is required under this Invitation and Bid, Contractor shall pay the required annual fee for such participation for each Renewal Term upon the issuance of the Renewal Notice.

1.3 CONTRACT TYPE: **REQUIREMENTS**

1.3.1 The following items are required in the operation of various City agencies as ordered. Exact quantities cannot now be determined but estimates thereof are listed herein. Quantities listed may be increased or decreased to meet the requirements of the City during the period of this contract. A minimum is not guaranteed.

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Purchase orders issued as a result of this bid will be for materials or services to be delivered generally on an as-needed basis. Successful bidders are cautioned not to deliver any materials or services without first being advised to do so by the ordering agency.

- 1.3.2 It is the intent of the Procurement Department to make an award for the period as stated above subject to the appropriation of funds in succeeding fiscal year/years by City Council. The City's fiscal year is from July 1<sup>st</sup> to June 30<sup>th</sup> inclusive.

Commodities or services on the bid to be ordered after the end of the fiscal year are subject to the issuance of purchase orders for the following fiscal years. The City is not liable for the award involving following fiscal years' funds until such orders are issued.

The successful bidder(s) obligation to deliver on such purchase orders shall not take effect until the orders are issued. To simplify the contract procedure, however, the successful vendor will be required to furnish a Performance Bond or Performance Security Fee to cover units awarded to him.

- 1.4 METHODOLOGY OF ACQUISITION: Purchase only.

- 1.5 STATEMENT OF DIRECTION:

- 1.5.1 It is the intent of the City of Philadelphia to make an award for Tiller Ladder for the Office of Fleet Management as specified herein during the contract period.

- 1.6 BID SECURITY

- 1.6.1 Bid security shall be based upon **cumulative bid amount per Section 5**

All bids submitted with a total greater than \$32,000.00 must be accompanied by the proper Bid Security.

- 1.6.2 For the purpose of this bid only, paragraph 2 of the attached "Terms and Conditions of Bidding and Contract" is hereby deleted. Instead, bidders must submit with their bid a Bid Bond executed on the attached City Bid Bond Form in the amount of 10% of the bidder's bid.

- 1.7 BID INFORMATION:

- 1.7.1 All information concerning this bid will be contained in this bid document as issued or amended.

- 1.7.2 Information provided verbally by any City official shall not be binding or relevant.

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1.8 BID SUBMISSION:

- 1.8.1 Bid information must be submitted to the City of Philadelphia no later than the time and date for the bid opening.
- 1.8.2 Advertised sealed bids will be received and read publicly at 10:30 AM in Room #170A, 1<sup>st</sup> Floor, Municipal Services Building, 1401 JFK Boulevard.
- 1.8.3 Bid should be complete and include ALL information required as described in the various paragraphs of the bid specifications.
- 1.8.4 All pricing must be completed on the forms provided; be complete; and be in ink or typed.
- 1.8.5 The bid must be complete as to required bid signatures and corporate seal, and fully accept the terms and conditions contained in the bid.
- 1.8.6 Vendor's bid should be complete and include ALL information required as described in the various paragraphs of the bid specifications. All pricing must be completed on the forms provided and must be in **ink or typed**. The bid must be complete as to required bid signatures and corporate seal, and fully accept the terms and conditions contained in the bid.

1.8.7 **LOCAL BIDDING PREFERENCE**

In accordance with Chapter 17-109 of The Philadelphia Code relating to Local Bidding Preferences and the Regulations promulgated thereto, this bid may be subject to a local bid preference<sup>1</sup>. In order to determine eligibility to receive the preference, if applicable, bidder must be certified as a Local Business Entity ("LBE") at the time of the bid opening and must submit with the bid its LBE Certification number as issued by the Procurement Department:

Bidder's LBE Certification Number\_\_\_\_\_

Further, through submission of this bid, bidder makes the following certification in connection with the grant of any local bidding preference which certification is incorporated into any contract resulting from this bid:

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<sup>1</sup> For bids of One Million Dollars or less, the preference is ten percent (10%); for all other bids the preference is five percent (5%).

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"Throughout the entirety of the contract, my company or my LBE certified subcontractor(s)<sup>2</sup> will perform the majority of any work on the subject contract within the geographic limits of the City of Philadelphia and my company or my LBE certified subcontractor(s) will maintain within the City a majority of the inventory or equipment that will be used on the contract or the amount of inventory that is customary for that industry."

If the Procurement Commissioner determines that the awarded bidder fails to comply with its certification at any time during the term of its contract, the awarded bidder's LBE certification will be revoked and the awarded bidder shall be deemed in substantial breach of such contract, shall be required to pay liquidated damages of 10% of the awarded contract amount, and may be debarred by the Procurement Commissioner in accordance with the Procurement Department Debarment Regulation for a period up to three years.

NOTE: If you wish to apply for Local Business Entity (LBE) certification, go to [www.phila.gov/bids](http://www.phila.gov/bids). Please provide sufficient time prior to bidding for processing of the LBE application.

1.8.8

**BID PROCESSING FEE:**

All bids submitted where the bid total is greater than \$30,000 must be accompanied by the proper Bid Processing Fee. The fee shall be in the form of a separate check or money order in accordance with Paragraph 3 of the "Terms and Conditions of Bidding and Contract".

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<sup>2</sup> If the Bidder relies upon LBE subcontractor(s) to perform the majority of the work and maintain the majority of the inventory or equipment within the City, the subcontractor(s)' LBE Certification Number and most recent annual affidavit of continuing eligibility must be submitted to the Procurement Department.

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1.8.9 CONTACT PERSON:

PRE-AWARD:

Indicate below to whom in your firm questions concerning this Invitation and Bid should be directed:

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

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

City/State/ZC: \_\_\_\_\_

Telephone No. (\_\_\_\_\_) \_\_\_\_\_ Ext.: \_\_\_\_\_

Fax No. (\_\_\_\_\_) \_\_\_\_\_

E-mail address \_\_\_\_\_

Vendor's WEB address \_\_\_\_\_

POST-AWARD:

Indicate below to whom in your firm questions concerning the Contract resulting from this Invitation and Bid should be directed:

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

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

City/State/ZC: \_\_\_\_\_

Telephone No. (\_\_\_\_\_) \_\_\_\_\_ Ext.: \_\_\_\_\_

Fax No. (\_\_\_\_\_) \_\_\_\_\_

E-mail address \_\_\_\_\_

Vendor's WEB address \_\_\_\_\_

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1.8.10 ALTERNATES SUBMITTED

If an alternate to any item is offered, bidder must follow instructions in Paragraph 4 of "Terms and Conditions of Bidding and Contract". State the brand name and the model number of each alternate offered. Detailed technical information on the alternate should accompany the bid.

Failure to state alternates will obligate bidder to provide material and/or service specified in the bid; see also 1.8.10 below.

Any other product information submitted by bidder in connection with this bid is for purposes of product description, information and specification only. Bidder agrees that any additional terms or conditions contained therein, including, but not limited to, disclaimers or limitations of liability, do not become part of the bid.

1.8.11 FORMS TO BE RETURNED WITH BID:

Form #80-247B (one for each type of vehicle offered) is to be completed and returned with the bid.

The Temporary Certificate shall be forwarded to the Office of Fleet Management, Attention James Muller, 100 S. Broad St., 3<sup>rd</sup> floor, Philadelphia, PA 19102. Bidder shall state year, make, model, body model, manufacturer's cut off date, and delivery after receipt of order.

YEAR: \_\_\_\_\_

MAKE: \_\_\_\_\_

MODEL: \_\_\_\_\_

BODY MODEL: \_\_\_\_\_

MANUFACTURER'S CUT OFF DATE: \_\_\_\_\_

DELIVERY ARO: \_\_\_\_\_

1.8.12 BID QUESTIONS OR PROBLEMS

In preparing the bid response, should any bidder need clarification on the bid requirements, identify a discrepancy in the specifications, determine that a specified product has been discontinued or an alternate procedure is advised, etc.; then the bidder is **STRONGLY** encouraged to bring these issues to the attention of the Procurement Department prior to the bid opening by calling (215) 686-4720 or 4721, or by addressing a letter or fax (fax # 215-686-4727) to the Buyer.

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Questions, whether written, phoned or faxed should be received no later than seven (7) calendar days prior to the scheduled opening date of the bid. The City reserves the right to only respond to those questions submitted prior to the stated deadline. If it is in the City's best interest to do so, the bid **MAY** be amended to reflect the proposed changes/modifications. Exceptions taken **DO NOT** obligate the City to change the specifications.

The City of Philadelphia, Procurement Department will notify all bidders in writing, by addendum duly issued, of any interpretations/changes made to specifications or instructions. The City will not accept responsibility for oral instructions, suggestions or changes by any City agency.

1.9 BIDDER QUALIFICATION:

- 1.9.1 All bidders must be a bona fide manufacturer of, or dealer in, the article or service specified within the bid. To demonstrate this, bidders should submit the following reference information with their bid. References provided should be pertinent to the commodity or service requested in this Invitation and Bid and demonstrate the bidders ability to perform on a contract of this size and scope.

Please note that reference information in each section must be completed. Failure to submit this information may result in the bidder's disqualification.

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SECTION 1:

Customer Reference other than an employee or department of the City of Philadelphia, (excluding suppliers or financial institutions).

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

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

Phone No.: \_\_\_\_\_

Type Work: \_\_\_\_\_

Years dealing w/your firm: \_\_\_\_\_

SECTION 2:

Previous purchase order(s)/contract(s) with the City of Philadelphia; (State "None" if applicable).

Dept. Name: \_\_\_\_\_

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

Phone No.: \_\_\_\_\_

PO#/Contract#: \_\_\_\_\_

Items: \_\_\_\_\_

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1.10 MANDATORY PRE-BID MEETING

A MANDATORY PRE-BID MEETING for all interested parties will be held on **Thursday June 12, 2014 at 1:00PM** at 1401 JFK Boulevard, Room 170A Municipal Services Building(MSB) Philadelphia, PA 19102.

The purpose of this meeting is to respond to questions from prospective bidders. Bidders are encouraged to submit questions in writing at this time. All questions that materially impact upon the bid process will be answered, in writing, in a formal addendum issued by the City. Oral responses by City employees or their representatives are not binding and shall not in any way be a commitment by the City.

Attendance at this Pre-Bid Meeting is Mandatory. Only bidders who attend the Pre-Bid Meeting and are subsequently qualified by the City will be eligible for award.

**SECTION 2: SPECIFICATIONS**

2.1 Successful Bidder shall be required to supply the City of Philadelphia's **Office of Fleet Management (OFM) with a 100 ft. Tractor-Drawn Aerial Apparatus** as listed in Sections 2 and 5 of this Invitation and Bid.

2.2 **SPECIFIC REQUIREMENTS**

All items to be bid upon are in accordance with Procurement Department Specification 41-V-20M:86 and OFM Spec Code 32845g.13.

In Section 5 "Pricing", vendor shall submit an Each (EA) price for all items listed therein. Bidder shall submit pricing on items indicated plus all options. Quoted prices must not contain more than three (3) decimal places.

2.3 **42881 000 056**

Unit as per Specification

- Omit Section 15.5, Spare Tires
- Omit Section 19.0, Pre-Production Inspection
- Omit Item 32.3.1, Manuals
- Omit Item 32.3.1.1, Software
- Omit Item 32.3.1.2, Laptop Computer
- Omit Item 34.1, Operator Training
- Omit Item 34.2, Technician Training

**OPTIONS**

2.3.1 **42881 009 060**

Item 15.5.1, Spare Front Tractor Axle

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- 2.3.2      **42881 009 061**  
Item 15.5.2, Spare Rear Tractor Axle
- 2.3.3      **42881 009 062**  
Item 15.5.3, Spare Tiller Axle
- 2.3.4      **42881 009 054**  
Item 19.1, Pre-Construction Conference  
(Cost per individual)
- 2.3.5      **42881 009 055**  
Item 19.2, Completed Chassis Inspection Trip  
(Cost per individual)
- 2.3.6      **42881 009 063**  
Item 19.3, Body Mid-Inspection Trip  
(Cost per individual)
- 2.3.7      **42881 009 057**  
Item 19.4, Final Completion Inspection Trip  
(Cost per individual)
- 2.3.8      **42881 009 064**  
Item 32.3.1, Manuals
- 2.3.9      **42881 009 069**  
Item 32.3.1.1, Software
- 2.3.10     **42881 009 070**  
Item 32.3.1.2, Laptop Computer
- 2.3.11     **42881 009 071**  
Item 34.1, Operator Training
- 2.3.12     **42881 009 072**  
Item 34.2, Technician Training

2.4    **DELIVERY INSTRUCTIONS:**  
Department will contact vendor with delivery instructions.

All invoices against this purchase order should be mailed to:

Office of Fleet Management  
Accounting Unit, 3<sup>rd</sup> Floor  
100 South Broad Street  
Philadelphia, PA 19110

All motor vehicles, which are furnished by the awarded vendor, must be manufactured in the United States, Canada or Mexico. Motor vehicles consist of passenger cars and trucks in accordance with 75 Pa. C.S. §102, known as the Vehicle Code.

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A motor vehicle is manufactured in the United States, Canada or Mexico if a substantial majority of the principal components are assembled into the final products in an assembly plant in the United States, Canada or Mexico.

The awarded contractor shall be prepared to prove that the motor vehicles which will be or have been furnished to the City of Philadelphia are, or were, in fact, manufactured in the United States, Canada or Mexico in accordance with Sections 3731-3736 of the Commonwealth Procurement Code (62 Pa. C.S. §§3731-3736, with applicability to the City of Philadelphia at 62 Pa.C.S. §3102), known as the Motor Vehicle Procurement Act. No payment shall be made to the awarded contractor unless the City of Philadelphia is satisfied that the contractor has complied with these provisions and the Motor Vehicle Procurement Act.

Any payments made to the contractor, which should have not been made, shall be recoverable directly from the contractor. In addition to the withholding of payments, any person who willfully violates any of the provisions of the Motor Vehicle Procurement Act, may be prohibited by the City of Philadelphia from participation in contracts awarded by the City of Philadelphia for a period of three years from the date of the determination that a violation has occurred.

### SECTION 3: BID EVALUATION AND AWARD

#### 3.1 EVALUATION

3.1.1 Bid will be evaluated by the Procurement Department.

3.1.2 Bids will be evaluated for responsiveness to the bid specifications and for responsibility of the bidders.

3.1.3 Bids which are determined to be non-responsive for reasons of:

- (i) improper bid security
- (ii) improper bid execution
- (iii) incompleteness
- (iv) offering counter terms and conditions
- (v) improper or incomplete execution of OEO documents (if applicable)

may be disqualified by the City without notice to the bidder. The decision of the City is final.

3.1.4 Bidders whose bids are determined to be non-responsible for reasons of bidder qualification shall be notified by the City of the reasons for the determination and may contest the finding of non-responsibility through the prescribed procedures described in paragraph 9 of "Terms and Conditions of Bidding and Contract".

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### 3.2 AWARD

3.2.1 This Invitation and Bid shall be awarded to the lowest responsive and responsible bidder(s).

3.2.2 BASIS OF AWARD: The basis of award is based on all items . Excluding Items 5.1.4, 5.1.5, 5.1.6, and 5.1.7.

The prices used for the calculation of the basis of award must be the same prices as quoted in Section 5- Pricing.

The contract award will be in the amount of the total amount bid for the items plus a 5% contingency amount to allow and provide for technological changes, improvements or amplifications as the result of the pilot inspection, etc.

#### 3.2.3 **Mandatory Pre-Award Meeting:**

A mandatory pre-award meeting will be held after the bid opening prior to award with the apparent low bidder to ensure that they have met all Bidder Qualifications and are fully capable of performing the scope of services listed in this Invitation and Bid.

#### 3.2.4 **Local Bidding Preference**

In applying the 10% preference, if applicable, the bid price of the LBE will be multiplied by .90 and rounded to the second decimal place. In applying the 5% preference, if applicable, the bid price of the LBE will be multiplied by .95 and rounded to the second decimal place. The adjusted bid price of the LBE will then be used in determining the lowest responsive and responsible bidder. If any section of the bid is awarded by line item, the local bid preference will not apply to that section.

Unless the Procurement Commissioner determines to waive the preference for the reasons stated in subsection 7 b. of the LBE Regulation, an LBE, whose bid is otherwise responsive and responsible and who has submitted the required information, shall be granted the applicable bid preference on competitive bid(s) awards that are awarded as a whole or by section.

#### 3.2.5 Performance Security

If the total award amount exceeds \$500,000, the Master Performance Security Program does not apply. Upon notification of award, the City will require the successful vendor to provide an individual Performance Bond in the amount of 100% of the contract award as specified in the Letter of Award. For any subsequent renewal periods, sections 1.2.1 and 1.2.2 shall apply.

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3.2.6 City of Philadelphia-Business Corporate and Slavery Era Insurance Disclosure

In accordance with Section 17-104 of The Philadelphia Code, the Bidder, after execution of this Contract, will complete an affidavit certifying and representing that the Bidder (including any parent company, subsidiary, exclusive distributor or company affiliated with Bidder) has searched any and all records of the Bidder or any predecessor business entity regarding records of investments or profits from slavery or slaveholder insurance policies during the slavery era. The names of any slaves or slaveholders described in those records must be disclosed in the affidavit.

The Bidder expressly understands and agrees that any false certification or representation in connection with this Paragraph and/or any failure to comply with the provisions of this Paragraph shall constitute a substantial breach of this Contract entitling the City to all rights and remedies provided in this Contract or otherwise available in law (including, but not limited to, Section 17-104 of the Philadelphia Code) or equity and the contract will be deemed voidable. In addition, it is understood that false certification or representation is subject to prosecution under Title 18 Pa.C.S.A. Section 4904.

3.2.7 Insurance

Insurance is a requirement for this bid in accordance with Paragraph 15 of the "Terms and Conditions of Bidding and Contract". No contract will be executed nor purchase order issued unless and until all required insurance certificates, in the required amount, are received. **All insurance MUST meet the following requirements:**

- Insured must be in the same name and address as the Bidder
- The insurance carrier must be rated "A" or better by AM Best
- The certificate holder must be the City of Philadelphia, and specifically named as an additional insured on the certificate in the "Description of Operations section."
- Certificate must be signed by an authorized representative of the insurance company/carrier

All certificates are to be sent to the Office of Risk Management, One Parkway, 1515 Arch Street, 14<sup>th</sup> Floor, Philadelphia, PA 19102, Attn. Debbie Lawton or FAX to (215) 683-1705.

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3.2.8 Pricing Verification

Awarded vendor must supply to the city at time pre-award, detailed pricing sheets showing the cost, profit and discount of each item supplied to be used for future reference in regards to section 4.2.7, Escalation Price.

**SECTION 4: CONTRACT MANAGEMENT**

4.1 CITY OF PHILADELPHIA RESPONSIBILITY

4.1.1 Order Against Contracts

(i) Subsequent to contract conformance of a Requirements bid, purchase orders will be issued at such time that the product and/or service is needed. Such purchase orders will show if delivery is to be made upon receipt of order, or only after notification by the using department.

4.1.1.1 The purchase order will be issued for unit and price not including contingency.

4.1.1.2 If during the production process the City identifies a need, the City will issue a change order. The total of the original purchase order and the change orders cannot exceed the contract total.

4.1.2 Invoices shall be processed for payment upon the City's acceptance of the subject vehicle or equipment.

4.1.3 The using agencies and departments are responsible for monitoring the products delivered as described in the contract. If any problems arise, a letter should be sent to the vendor requesting resolution by a specified date. A copy should be sent to the buyer. If vendor does not resolve the breach of contract by the requested date the matter should be turned over to the buyer.

4.1.4 **ADD-ONS:**

The City reserves the right to add, delete or change locations; or to acquire other types of options that the vendor can supply that are similar to, but not specifically called for in this bid. The procedure for such acquisitions shall be as follows:

Procurement or the using department will obtain from the Vendor a letter (on his/her letterhead) verifying the items to be added.

<b>INVITATION AND BID</b> Continuation	CITY OF PHILADELPHIA  <b>PROCUREMENT DEPARTMENT</b>  PHILADELPHIA, PA 19102 - 1685	BID NUMBER <b>S5YQ0640</b>	PAGE OF <b>16 20</b>
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The letter shall include the complete description of the item, the location (if applicable), the bid number, bid schedule number, the price to the City and the applicable contract period; and upon receipt and approval by the Procurement Department shall automatically become part of the contract.

4.1.5 Assignment

Bidder's are hereby advised that, subsequent to the execution of a contract between the City and the awarded vendor, the City may assign some portion of this contract to the Philadelphia Municipal Authority ("PMA"). Any assignment to the MA will not alter any of the specifications or terms and conditions of this contract.

4.2 VENDOR RESPONSIBILITY

4.2.1 Contractor may deliver vehicles or equipment as authorized in the contract and only after receipt of a purchase order or other authorized document from the Procurement Department. All orders must be in writing. Contractor shall not accept verbal delivery requests until after receipt of purchase order or other authorizing document from Procurement.

4.2.2 Contractor may deliver only vehicles or equipment at the prices quoted in the contract and that are reflected on a purchase order or a change to a purchase order (a change to a purchase order is issued whenever the items, unit price, total amount, or terms and conditions change from the original purchase order).

4.2.3 In the event that the contractor receives an order for products, vehicles or equipment not specifically priced and incorporated into the contract, they must:

- (i) bring this to the immediate attention of the Procurement Dept., and
- (ii) notify the ordering agency in writing and refuse to deliver.

4.2.4 Should vehicles or equipment be delivered that are not specifically incorporated and priced into the contract, and/or be delivered without purchase order, the City shall have no obligation for payment.

4.2.5 For delivery of vehicles or equipment, contractors shall honor and be paid for orders placed until the close of business of the date of purchase order expiration. Delivery of product may occur following purchase order expiration, so long as the order was placed prior to the purchase order expiration date.

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- 4.2.5.1      **Liquidated Damages For Late Deliveries**  
These specifications shall be subject to the following contractual provisions.
- (1)      Time is an essential element of this agreement and Seller agrees that deliveries of items in condition satisfactory to the Procurement Commissioner shall be completed as provided on the day(s) specified pursuant to the delivery schedule contained in specifications.
  - (2)      For each and every day that a vehicle is late, in accordance with the delivery schedule, the Procurement Commissioner may deduct from the monies due or becoming due Seller the sum per day per undelivered vehicle specified in the bid as liquidated damages to compensate Buyer for its damages arising out of delay in delivery. The number of days shall be computed as including the day of default through to but not inclusive of the day when delivery is made. Provided, however, as to item delivered but rejected, the item shall be considered as non-delivered from the date n which the vendor is notified of rejection until the date the item is re-delivered.
  - (3)      The term "vehicle" as used above shall refer to each vehicle, vehicle body, chassis, or other unit of equipment award to the bidder.
  - (4)      Notwithstanding the above provisions Seller shall not the liable for liquidated damages for delays in delivery caused by Acts of God, acts of public enemy, acts of government, quarantine restrictions and general strikes throughout the industry or freight embargoes not caused by or participated in by Seller.
  - (5)      Resort to liquidated damages provision by Buyer shall not preclude by Buyer from resorting to other available remedies for subsequent or continuing breaches by Seller.
  - (6)      Liquidated damages will be in the amount of \$200.00 per calendar day pr vehicle that delivery of each vehicle exceeds he elivery schedule stated.

<b>INVITATION AND BID</b> Continuation	CITY OF PHILADELPHIA <b>PROCUREMENT DEPARTMENT</b> PHILADELPHIA, PA 19102 - 1685	BID NUMBER <b>S5YQ0640</b>	PAGE OF <b>18 20</b>
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4.2.6 Successful bidder(s) will invoice after delivery and acceptance of vehicle(s) or equipment by the City to the address shown on purchase order.

4.2.7 Escalation Price

Vendor shall provide current model year vehicle at the prices set forth in Section 5. For subsequent model years, the vendor may increase or decrease the price provided that:

Next model year vehicle and optional pricing will be based on the percentage difference between the new dealer cost sheet and pricing level and the dealer cost sheet and pricing level effective on the date of the bid opening. This proportional (percentage) increase or decrease will be applicable to the contract price for the current model year vehicle and/or option, thus establishing the new price next model year vehicle and options.

Notice of any price change in the dealer cost sheet and pricing level established by the Manufacturer shall be given in writing to the Procurement Department, Department of Finance and the Controller Office. This notice must be accompanied by the notice from the manufacturer to the vendor showing the price changes. The City reserves the right to review the propriety of the price rise and cancel the contract at its discretion.

In no event shall the increased prices exceed the dealer's cost sheet and pricing level for vehicles under similar terms and conditions.

4.2.8 At the conclusion of this contract, Contractor agrees to cooperate with any incoming vendor on a transition plan to ensure an orderly changeover of responsibilities.

Failure to comply with the City's payment reporting process may be considered an Event of Default.

4.3 VENDOR ACCEPTANCES - IN SUBMITTING AN EXECUTED BID, THE BIDDER AGREES TO THE CONTRACT MANAGEMENT PROCEDURES IN THIS SECTION.

<b>INVITATION AND BID Continuation</b>	CITY OF PHILADELPHIA  <b>PROCUREMENT DEPARTMENT</b>  PHILADELPHIA, PA 19102 - 1685	BID NUMBER <b>S5YQ0640</b>	PAGE OF <b>19 20</b>
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**SECTION 5: PRICING**

**(PRICES QUOTED MAY NOT EXCEED THREE (3) DECIMAL PLACES)**

Unit pricing quoted below will prevail in case of any discrepancy(ies) between unit price and the extended amount and will be the determining factor in establishing applicable contract amount(s)/award.

		UNIT PRICE
5.1 <b>42881-000 056</b> Ladder, Tiller, 100' Tractor Drawn Aerial Apparatus Unit as per specification Omit 15.5, Spare Tires Omit 19.0, Pre-Production Inspection Omit 32.3.1, Manuals Omit 32.3.1.1, Software Omit 32.3.1.2, Laptop Computer Omit 34.1, Operator Training Omit 34.2, Technician Training	EA	\$ _____

**OPTIONS**

5.1.1 <b>42881 009 060</b> Item 15.5.1 Spare Front Tractor Axle	EA	\$ _____
5.1.2 <b>42881 009 061</b> Item 15.5.2 Spare Rear Tractor Axle	EA	\$ _____
5.1.3 <b>42881 009 062</b> Item 15.5.3 Spare Tiller Axle	EA	\$ _____
5.1.4 <b>42881 009 054</b> Item 19.1 Pre-Construction Conference (Cost per individual)	EA	\$ _____

<b>INVITATION AND BID</b> Continuation	CITY OF PHILADELPHIA <b>PROCUREMENT DEPARTMENT</b> PHILADELPHIA, PA 19102 - 1685	BID NUMBER <b>S5YQ0640</b>	PAGE OF <b>20 20</b>
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			UNIT PRICE
5.1.5	<b>42881 009 055</b> Item 19.2 Completed Chassis Inspection Trip (Cost per individual)	EA	\$ _____
5.1.6	<b>42881 009 063</b> Item 19.3 Body Mid-Inspection Trip (Cost per individual)	EA	\$ _____
5.1.7	<b>42881 009 057</b> Item 19.4 Final Completion Inspection Trip (Cost per individual)	EA	\$ _____
5.1.8	<b>42881 009 064</b> Item 32.3.1 Manuals	EA	\$ _____
5.1.9	<b>42881 009 069</b> Item 32.3.1.1 Software	EA	\$ _____
5.1.10	<b>42881 009 070</b> Item 32.3.1.2 Laptop Computer	EA	\$ _____
5.1.11	<b>42881 009 071</b> Item 34.1 Operator Training	EA	\$ _____
5.1.12	<b>42881 009 072</b> Item 34.2 Technician Training	EA	\$ _____

TOTAL BID PRICE                   \$ \_\_\_\_\_  
(5.1 - 5.1.12)

BIDDER TO SPECIFY DELIVERY TIME: \_\_\_\_\_(BUSINESS DAYS)

BIDDER TO SPECIFY DELIVERY TIME OF SECOND UNIT: \_\_\_\_\_(BUSINESS DAYS)

# CITY OF PHILADELPHIA



## BID BOND

FOR CITY OF PHILADELPHIA BID NUMBER: \_\_\_\_\_  
(Please Fill In)

KNOW ALL MEN BY THESE PRESENTS, THAT WE \_\_\_\_\_  
\_\_\_\_\_ as Principal  
(hereinafter called the "Principal Obligor"), and

\_\_\_\_\_ (as Surety) are jointly and severally held and firmly bound unto The City of Philadelphia, in the sum of **TEN PERCENT (10%) OF THE GROSS AMOUNT OF THE BID** lawful money of the United States of America, to be paid to the said City of Philadelphia, its successors and assigns; to which payment, well and truly to be made we do bind ourselves and each of us, our and each of our successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated the \_\_\_\_\_ day of \_\_\_\_\_ two-thousand and fourteen (2014).

**WHEREAS** the above bounded Principal Obligor, submitted a bid pursuant to the above-referenced bid number to provide certain goods, services, or equipment to the City of Philadelphia.

**NOW THE CONDITION OF THIS OBLIGATION IS SUCH**, That if the City of Philadelphia shall accept the bid of the Principal Obligor and the Principal Obligor shall enter into a contract with the City in accordance with the terms of such bid, and furnish such bond or bonds as are specified in the bid documents with good and sufficient surety, for the faithful performance of the contract; or in the event of the failure or refusal of the Principal Obligor to enter into such contract and give such bond or bonds, if the Principal Obligor shall pay to the City the difference between the amount specified in said bid and such larger amount for which the City may legally contract with another party to provide the goods, services, or equipment required by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

And for the doing of these acts this instrument or a copy thereof attested as aforesaid shall be full warrant and authority.

**CORPORATE SEAL:**

**PRINCIPAL OBLIGOR:**

\_\_\_\_\_  
President/Vice-President (SEAL)

\_\_\_\_\_  
Secretary/Treasurer (SEAL)

**SURETY SEAL:**

**SURETY:**

\_\_\_\_\_  
Attorney-In-Fact (SEAL)

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**INSTRUCTIONS:**

- (1) ALL VENDORS MUST UTILIZE THIS BID BOND FORM WHEN SUBMITTING A BID TO THE CITY.
- (2) IF PRINCIPAL OBLIGOR IS AN INDIVIDUAL OR PARTNERSHIP, BID BOND SHOULD BE SIGNED BY OWNER OR AUTHORIZED GENERAL PARTNER. PLEASE IDENTIFY ON THE BID BOND THE TYPE OF BUSINESS (E.G. INDIVIDUAL PROPRIETORSHIP OR PARTNERSHIP) AND TITLE OF PARTY EXECUTING THE BID BOND.
- (3) BID BOND MUST BE EXECUTED BY A SURETY COMPANY DULY AUTHORIZED AND LICENSED TO ACT AS SURETY BY THE PENNSYLVANIA INSURANCE COMMISSIONER PURSUANT TO THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA.

# **Form 80-247B**

BID No.			ITEM No.			QUANTITY		
<b>CHASSIS</b>								
MAKE			MODEL NO.			WHEELBASE		
<b>ENGINE</b>								
MAKE			MODEL	DISPL. (CU. IN.)		NO. CYL	MAXIMUM NET H.P.	GOVERNED RPM
<b>TRANSMISSION</b>								
MAKE			MODEL NO.			TYPE		
SPEED RATIOS						NO. PTO OPENINGS		
<b>CLUTCH</b>								
MAKE			NOMINAL DIAMETER			TYPE <input type="checkbox"/> Single Disk <input type="checkbox"/> Twin Disk		
<b>AXLES</b>								
FRONT	MAKE		MODEL NO.			CAPACITY AT GROUND Lbs.		
REAR	MAKE		MODEL NO. RATIO			CAPACITY AT GROUND Lbs.		
<b>FRAME</b>								
SECTION MODULS			MAX. RESISTING MOMENT Inch-Lbs.			YIELD STRENGTH. MIN Lbs./Sq.In.		
SIDE RAIL DIMENSIONS								
<b>STEERING</b>								
TURNING RADIUS FT.			POWER <input type="checkbox"/> NO <input type="checkbox"/> YES			(MAKE)                      (MODEL)		
<b>WHEELS</b>								
FRONT-MAKE AND RIM SIZE					REAR-MAKE AND RIM SIZE			
<b>TIRES</b>								
FRONT	NO.	SIZE	PLY RATING	CAPACITY Lbs.@ Psi.		TYPE <input type="checkbox"/> Tube <input type="checkbox"/> Tubeless		CORD MATERIAL
REAR	NO.	SIZE	PLY RATING	CAPACITY Lbs.@ Psi.		TYPE <input type="checkbox"/> Tube <input type="checkbox"/> Tubeless		CORD MATERIAL
80-247B(Rev.4/69)			AUTOMOTIVE DATA					

**TYPE:** 100 ft. Tractor-Drawn Aerial Apparatus

**GVWR:** 68,500 lbs., approximate

**SPEC. CODE:** 32845g.13

**REF. PURCH. DESCRIPTION:** 41-V-20M:86

**VOCATION:** Emergency Fire Fighting Response

### INTENT OF SPECIFICATIONS

It is the intent of these specifications to cover the furnishing and delivery to the Purchaser of a complete new, current model year, latest model and top of the line NFPA 1901 compliant aerial fire apparatus equipped as hereinafter specified. With a view to obtaining the best results and the most acceptable apparatus for service in the Fire Department, these specifications cover only the general requirements as to the type of construction and tests to which the apparatus must conform, together with certain details as to finish, equipment, and appliances with which the successful Bidder must conform. Minor details in construction and materials where not otherwise specified are left to the discretion of the manufacturer; who will be solely responsible for the design and construction of all features.

Bids will only be considered from manufacturers who have an established reputation in the field of fire apparatus construction. Each bidder will furnish satisfactory evidence of his ability to construct the apparatus specified; state the location of the factory where the apparatus is to be built and show means to render prompt service and to furnish replacement parts for said apparatus. No bid will be considered from a firm which has not been continuously engaged in the manufacture of aerial fire apparatus for a period of at least five (5) years. Awarded vendor is considered the "Prime Vendor" for the complete unit and is responsible for all conditions of the bid.

Appurtenances and/or accessories not herein mentioned but necessary to furnish a complete unit ready for immediate use upon delivery shall be included and conform to the best practices known in strength, quality, material and workmanship and be subject to these specifications in full. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and be furnished. This unit must supply as a minimum all standard equipment of the reference model (s) listed in this specification.

All electrical wiring shall be color or numbers coded and include circuit labeling throughout. Circuit breakers or fuses shall protect all electrical circuits. The chassis-to-body wiring shall be of the **DEUTSCH** type connections. Wiring connections in areas exposed to the elements will be crimped, soldered and covered with heat shrink tube. All remaining connections must use a military type crimp and may not be of insulation displacement type.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

All lighting shall be LED including indicators, jewel lights etcetera. Bidder shall provide a separate sheet with submittal of bid listing any lighting position that cannot fulfill this requirement.

**BIDDER INITIALS** \_\_\_\_\_

All wiring, non-hydraulic hoses and tubing throughout shall be protected by convoluted plastic split loom. The hydraulic hoses and tubing shall be protected by a nylon abrasion sleeve covering, convoluted split plastic loom, and/or fastened utilizing the Hycon Clamping system or approved equal. Rubber grommets shall be supplied on all wiring and hoses when passing through any bulkheads, body panels, etc.

It should be noted that the specific requirements, as outlined below, supersede and/or modify the corresponding paragraphs in the standard reference purchase description specification. It also should be noted that any deviation of a line item must be addressed in letterform and included in the bid package.

**This specification is not meant to be restrictive. It is recognized that manufacturers may have used different methods to insure integrity of their system. Bidders may substitute, for evaluation, alternate systems and the testing programs or protocols they have conducted to demonstrate compliance of their product. (Or Approved Equal Clause)**

**"OR APPROVED EQUAL"**

The mention in the specifications of apparatus, equipment or material by brand name or by such specified description of the same as is hereby made, is intended to convey to the bidder's understanding, the degree of excellence required. Any article, equipment, or material which will conform to the standards and excellence so established, and is of equal merit, strength, durability and appearance to perform the desired function, and are in service with other major municipalities in the United States. The Bidder is deemed eligible for offer as a substitute. The qualifications of the offering will be judged as to their conformance with these specifications. Any equipment offered other than herein specified will be subject to a competitive demonstration and evaluation by the using department. This demonstration is to be provided on request within ten (10) working days after the receipt of bids. The result of that demonstration and evaluation will be of prime importance in the recommendation to the governing body for the final contract award.

**SINGLE-LINE RESPONSIBILITY**

Since it is the Purchaser's desire to eliminate divided responsibility on the part of the manufacturers, the apparatus that is bid must be from manufacturers who build their own apparatus chassis, aerial devices and bodies. The apparatus that is bid must have its chassis, aerial device and body built by the bidding manufacturer of record. It is expected that the bid unit will be the bidders top of the line cab and chassis. At least ten (10) similar aerial units must have been sold and delivered of the type described herein. The apparatus chassis, body, and aerial device **MUST** be manufactured in the United States of America.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

**MODIFICATION TO STANDARD SPECIFICATION**

**1.0 SCOPE & CLASSIFICATION**

**INFORMATION REQUIRED WITH BID**

Each Bidder will provide with his bid:

a. These General Instructions, Requirements, and Specifications sheets as a part of the Bidder's bid proposal. All questions and fill-in blanks **MUST** be filled out completely. **FAILURE TO DO SO MAY CAUSE IMMEDIATE REJECTION OF THE PROPOSAL AT TIME OF OPENING.**

b. A list of exceptions to the Purchaser's specifications, under the following rules:

The following chassis, aerial and body specifications will be strictly adhered to. Exceptions will only be allowed if they are equal or superior to that specified, in the sole opinion of the City; provided they are listed and fully explained on a separate page entitled: "EXCEPTIONS TO SPECIFICATIONS." The Bidder's exception list will refer to the specifications by page and paragraph to prevent misinterpretation.

Any deviation from the following specification should be considered as an "exception" and listed as such. All exceptions not taken will be assumed by the City to be included in the Bidder's proposal, and the Bidder will conform to the specifications, regardless of cost to the Bidder.

**PROPOSALS TAKING "TOTAL EXCEPTION" TO THE PURCHASER'S SPECIFICATIONS WILL NOT BE ACCEPTED.**

c. The number of calendar days required to deliver an apparatus ARO. \_\_\_\_\_ Days  
**BIDDER INITIALS** \_\_\_\_\_

**PERFORMANCE TESTS AND REQUIREMENTS**

A SCAAN Analysis of the proposed vehicle will be supplied by the bidder when the bid is submitted.

A road test will be conducted with each delivered apparatus fully loaded on a continuous run of ten (10) miles that will be made under all driving conditions, during which time the apparatus will show no loss of power or overheating. The transmission driveshaft or shafts, and rear axles will run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus.

The apparatus will meet the following requirements:

1. The apparatus must be capable of accelerating to 35 MPH from a standing start within 25 seconds on a level highway without exceeding the maximum governed speed of the engine.
2. The service brakes will be capable of stopping the fully loaded vehicle in a distance not exceeding 35 feet from a speed of 20 MPH on a level concrete highway.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

3. The apparatus, fully loaded, will be capable of obtaining a minimum top speed of 50 MPH on a level concrete highway with the engine not exceeding its full load governed RPM.
4. The apparatus will be tested and approved by Underwriters Laboratories, Inc. in accordance with their standard practices.
5. The Manufacturer will furnish copies of the third party aerial testing certification; the engine manufacturer's current Certified Brake Horsepower curve; a weight certificate showing weight on the front axle, tractor axle, trailer axle and total weight for the completed apparatus; and the Manufacturer's Record of Construction Details when delivered.
6. Performance on a grade of not less than 6%, on a hard surfaced road, must meet the following criteria. Twenty (20) mph will be the minimum acceptable speed for the uphill performance with the vehicle transmission in the normal "drive" position. Twenty (20) mph will be the maximum acceptable speed for the downhill performance test with the vehicle in no less than second gear with the Jake brake on the high setting.

**FAILURE TO MEET TESTS**

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the Bidder within 30 days of the date of the first trials. Such trials will be final and conclusive, and failure to comply with these requirements will be cause for rejection. Failure to comply with changes as the Purchaser may consider necessary to conform to any clause of the specifications within 30 days after notice is given to the Bidder of such changes will also be cause for the rejection of the apparatus.

Permission to keep or store the apparatus in any building owned or occupied by the Purchaser or its use by the Fire Department during the above specified period with the permission of the Bidder will not constitute acceptance.

**TECHNICAL EVALUATION**

Technical evaluation will be based upon the ability of the Bidder to meet or exceed the minimum requirements set forth in the specifications during the expected life of the apparatus bid. Estimates concerning the ability of the fire apparatus to perform accordingly will be made by the Purchaser.

1. Quality of workmanship, materials, and components that are used in construction of fire apparatus.
2. Functional design of fire apparatus.
3. Warranties.
4. Any other factors the Purchaser deems to be relevant.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

**USER'S LIST**

The Bidder will provide the Name, Address, and Telephone Number of at least five (5) similar aerial units that have been manufactured and delivered to Fire Departments in the United States. The Bidder will also indicate the full name of a responsible person to contact at each Fire Department.

**2.0 APPLICABLE SPECIFICATIONS**

All line set ticket (actual part numbers and descriptions used in manufacturing), service, parts, operator, and preventive maintenance manuals will be provided in a computer readable media. Acceptable file formats are: ASCII, Microsoft Word, Excel, and PDF file, if available.

2.1 Provide two (2) line set tickets for each unit delivered.

**3.0 CAB AND CHASSIS**

**INTENT - We are requiring a severe duty type cab with an interior built to withstand the normal duty cycle of use in a major city environment. Use of plastic and composite materials shall therefore be limited.**

**3.1 CUSTOM CAB, FOUR-DOOR ALUMINUM FLAT ROOF**

The cab shall be designed and engineered specifically for the rigors and ergonomics of emergency response. The cab and chassis shall be designed, engineered and assembled as a premium quality, integrated unit which provides for safe and comfortable entry and egress of firefighters properly clothed in full protective gear. Safe and comfortable transport shall be afforded each occupant who is properly seated and restrained.

The interior trim shall be tooled to facilitate serviceable component access. Interior surfaces shall be comfortable, easy to clean and long lasting under the rigors of contact with firefighter's clothing and personal safety equipment.

The cab and chassis, defined as an "incomplete vehicle", shall meet and/or exceed all applicable FMVSS and FMCSR, Title #49, U.S. Code Requirements for vehicles domiciled in the United States.

**3.1.1 CAB CONSTRUCTION AND DIMENSIONS**

The cab shall be an all-aluminum structure utilizing sheet, plate and extruded structural shapes for maximum durability and resistance to corrosion and easy fabrication of replacement parts. All metal joints shall be caulked and the cab design shall not require the use of body fillers to achieve smooth contours or flat surfaces.

The maximum cab outer skin dimension shall be 100". With appurtenances including door hinges, fenders, cab trim, hand rails and warning lamps, the outer

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

dimension shall not exceed 102" without mirrors and 119" overall width including mirrors.

The cab design shall be for six (6) firefighters, width and length shall permit installation of two (2) seats in the front portion and up to four (4) seats in the rear portion. The rear cab section roof shall provide a minimum of 53", floor to ceiling height. Also provide a fully open design cab with no divider wall or window separating front and rear cab sections. The rear crew area floor space, front to back must be a minimum of 40 inches from the edge of engine tunnel to the cab back wall.

Provide a cab that is completely insulated against heat and sound intrusion. Cab roof, side and front walls shall be covered with closed cell foam insulation. The cab floor shall be insulated, include sound barrier and be completely covered with aluminum tread plate floor panels to minimize exterior noise intrusion while maximizing control of cab interior temperature.

**3.1.1.1 CAB OVERLAYS**

A bright finish aluminum tread plate overlay shall be placed on the cab roof, starting at a point rearward of the light bar location and extending back to the end of the cab roof. This tread plate overlay shall be sealed with caulking around the edges to prevent moisture from entering the area between the cab roof and the overlay.

Provide an overlay of aluminum tread plate on entire cab rear wall area, interior and exterior. Also, an overlay of brushed stainless steel shall be formed at the exterior rear cab corners from bottom edge to paint line.

**3.1.2 CAB DOORS**

The cab doors will be equipped with heavy-duty door latching hardware, which comply with FMVSS 206. The mechanics of the door operation will use rod linkage for positive operation with interior and exterior paddle-type latch handles. If paddle type latches are not available, latches provided must be able to be activated by firefighter wearing gloves. The door opening hardware must be metal, plastic is unacceptable to this purchaser.

Each door shall be equipped with a restraint device (s) to prevent the door from being sprung open by wind. These limiting straps must be installed not to limit door travel but to be loaded at end of door travel.

The cab doors will be of the "barrier" style.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

All front and rear doors will be equipped with operating windows, mechanical only, and when open no glass may protrude above the door trim or protective bar.

Heavy duty grab handles, one each side, will be provided on the interior of each cab door to assist in cab entry.

Brushed stainless steel plates will be installed on the inside of all doors extending from the bottom of the door to the window level.

Each door shall be equipped with a red LED light to operate as a flashing indicator when door is in the open position.

**Ref: Trucklite or approved equal**

**3.1.3 FRONT BUMPER**

A heavy duty, steel wraparound front bumper, painted red, will be provided for the full width of the cab. The bumper will be attached to the frame with carriage bolts.

The bumper will extend no more than 6 inches ahead of the cab, with cut-outs to accommodate air horns and Q2 siren.

A bright finish aluminum tread plate gravel guard will be provided between the bumper and front contour of the cab as needed.

**3.1.4 CAB GLASS**

Tinted, laminated safety glass will be provided for the cab's fixed windows. Tinted, tempered safety glass will be provided for the cab's door windows if available from OEM.

Provide a contour two (2) piece, symmetrical safety glass windshield.

**3.1.5 CAB ACCENT MOLDING**

The cab shall have black pin stripe on the front, rear and sides of the cab below the windows and windshield matching the paint divide line.

**3.1.6 CAB INTERIOR**

The interior will provide a ruggedized work environment that provides safety, comfort and ease of communication. It will be engineered to meet the NFPA standards for noise levels, control accessibility, and visibility.

The cab will be fully insulated with noise barrier material in the roof, rear cab, cab doors and floor.

A removable headliner will be provided in the front and rear cab sections.

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Floor to be insulated, sound barrier installed and completely covered with aluminum tread plate.

The cab entrance step well areas will be covered with a 1/8-inch bright aluminum tread plate, with a grip strip type aluminum extrusion material used to trim around each step well.

The cab will be fully ruggedized interior including walls, doors, engine cover and the dashboard, plastics and composites shall be minimalized. The interior cab and upholstery will be charcoal & grey in color.

A painted aluminum storage bin, large enough to hold and include a mechanism to secure four (4) 2" thick x 11" wide x 12" high 3-ring binders will be provided in the cab with straps or a nylon webbing cover. Further details shall be discussed at the preconstruction conference.

Provide and install two (2) certified brackets with stainless steel floor plate enclosures to mount the following on the cab back wall: one (1) Halligan tool and one (1) six pound pick-head axe. Further details shall be discussed at the preconstruction conference.

**3.1.7 ENGINE ENCLOSURE**

The enclosure will match the rest of the cab interior with the interior side covered with either aluminum tread plate or painted / powder coated aluminum. Provide polished stainless steel scuff plates as required in wear areas. The engine compartment side of the enclosure will be insulated and covered with aluminum plate of 1/8 or .090 gauges to reduce noise and heat from the engine compartment from penetrating into the cab interior. Further details shall be discussed at the preconstruction conference.

The engine enclosure should have large access door(s) that will permit daily fluid checks and filling of all fluids from within the cab interior without requiring the cab to be tilted. This requirement is preferred but not mandatory with the understanding of apparatus engineering limitations. Further details shall be discussed at the preconstruction conference.

Provide an aluminum accessory and equipment mounting plate for the entire top of dog house. Further details shall be discussed at the preconstruction conference.

**3.1.8 SWITCH PANEL**

The cab shall have a switch panel with one (1) master and ten (10) rocker switch locations as required. The panel shall be mounted within easy reach of both front seats. If cab design does not allow for this a split design may be offered, however

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final decision will be made by the City if the design conforms to the Fire Department's needs.

**3.1.9 CAB INTERIOR TRIM**

The cab interior & accent trim shall be a combination of Charcoal & Grey in color. The following interior components shall be consistent in material and color:

- 1. HEADLINER: Padded vinyl
- 2. VISORS: Gray padded vinyl
- 3. OVERHEAD CONSOLE: Molded composite, or other rugged material
- 4. FLOORING: Covered in aluminum tread plate
- 5. REAR WALL: Covered in aluminum tread plate

**3.1.10 DRIVER'S SEAT**

The driver seat shall be a high back w/ lumbar support, 8 way adjustable power seat. It shall be readily adjustable by the driver in accordance with SAE J1517 and pass static load tests set forth by FMVSS 207,209 and 210.

**Ref: H.O. Bostrom model Firefighter Sierra ABTS or approved equal**

**3.1.11 OFFICER SEAT**

The officer's seat shall be a high back, non-suspension SCBA seat with a full seat cushion and 6 inches of fore/aft travel. The seat base shall be large enough to contain a two-way radio power unit and it shall be equipped with a bottom-hinged door, complete with a flush "lift and turn" latch and have a Line-X textured finish. Seat provided must and pass static load tests set forth by FMVSS 207,209, 210 and 302. Further details shall be discussed at the preconstruction conference regarding the specific mounting location of this seat and how it relates to obscuring the driver's view out to the R/F door mirror.

**Ref: H.O. Bostrom model Firefighter Tanker ABTS w/SecureALL or approved equal**

**3.1.12 CREW SEATS, REAR FACING**

The rear cab area shall contain two (2), one each side, high back non-suspension rear facing SCBA seats. They shall be mounted behind the driver and officer seats. A minimum of 35 inches overall height is required above each seat. Seat provided must pass static load tests set forth by FMVSS 207 and 210.

**Ref: H.O. Bostrom model Firefighter Tanker ABTS w/SecureALL or approved equal**

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**3.1.13 CREW SEATS, FORWARD FACING**

The rear cab area shall contain two (2), non SCBA forward facing high back non-suspension flip-up seats. The two (2) seats shall be pedestal mounted on the back wall. Seat provided must pass static load tests set forth by FMVSS 207 and 210. Mounting position & details TBD at pre-construction conference.

**Ref: H.O. Bostrom model Firefighter ABTS or approved equal**

**3.1.14 FABRIC SEAT COVERS**

All seats shall be covered with a waterproof, high strength & wear resistant solid color fabric; delete manufacturer’s emblems from seat all upholstery. The seat bottoms are to be drop seam style. Seat coverings must have successfully completed the flammability tests as outlined in FMVSS 302.

**Ref: H.O. Bostrom Black Durawear or approved equal**

**3.1.15 CAB TILT MECHANISM**

The entire cab shall tilt up, 35 to 50 degrees, providing access to the drive train for maintenance and repair. The cab shall pivot at the front, raised by dual hydraulic cylinders with a mechanical lock and a push button control with a tether cable, minimum 8ft.

The hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position.

The cab lift system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set. If the parking brake is released the cab tilt mechanism will be disabled. Power will not be supplied directly to the operating solenoid, but will go through a redundant switched relay/solenoid in order to prevent uncontrolled tilting of the cab.

A remote cylinder lock release, (cable style only) shall be located in the right hand front door step well. The tether cable shall allow the operator to have a view of the area around the cab while the cab is in motion. Tether cable shall be hardwired and mounted in a cast aluminum box at the right hand front door stepwell. Further details shall be discussed at the preconstruction conference.

A fuse protected 12-volt motor driven pump with a self-contained hydraulic oil reservoir and a manual back-up pump shall be provided. Manual back up pump must be capable of lifting cab in two (2) minutes. Handle for manual jack shall be extra-long in length and mounted securely at driver’s seat area.

A dash mounted indicator light shall warn the driver if the cab is not latched.

Provide an audible alarm when either raising or lowering cab.

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**3.1.16 CAB FENDERS**

The cab shall be equipped with polished stainless steel fender extensions that fit into the radius of the cab fender well. Aluminum wheel well liners shall be furnished. The fenders shall provide protection against water and mud spray onto the cab from the front tires.

**3.1.17 SIDE WINDOWS**

The cab shall have fixed side windows, one (1) each side between the front and rear doors. They shall be tinted and include solar management treatment.

**3.1.18 WINDOW CONTROLS**

The four (4) cab doors shall be equipped with manual roll-up windows. Each manual window shall be operated by an automotive type handle, positioned within easy reach of personnel.

**3.1.19 FIXED REAR WINDOWS**

There shall be two (2) fixed windows mounted one (1) each side of the rear cab wall. The windows shall be tinted; include solar management treatment and be manufacturer's largest size possible.

**3.2 APPARATUS DIMENSIONS**

The intent of this specification is to procure a maneuverable and compact aerial apparatus. With this in mind, the apparatus proposed may be smaller but will not exceed the following maximum dimensions:

- Overall Height: 10 feet 10 inches MAX
- Overall Length: 55 feet 6 inches MAX
- Overall Width: 102 in. MAX
- Outrigger Spread: 14 ft. MAX

**3.2.1 WHEELBASE**

The chassis wheelbase shall be approximately 145 to 150 inches.

**3.3 PAINT AND FINISH SPECIFICATIONS**

All exposed welds will be ground smooth for final finishing of areas to be painted. All removable items, such as brackets, compartment doors, etc. will be painted separately to insure finish paint behind mounted items.

The inside and underside areas of the complete body assembly will be painted job color, red, and prior to the installation of the body on the chassis. Compartment interiors will be finished painted Line-X white or Zolatone white.

The chassis frame rails, suspension and axles will be painted job color, red, and prior to the installation of any air lines or electric systems to ensure proper serviceability.

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The body will be finish sanded and prepared for final paint. Upon completion of final preparation, the cab exterior and body will be painted in accordance with paint manufacturer's instructions. Finish paint will be applied in multiple coats to ensure proper paint coverage with a high gloss finish.

The cab exterior will be finish painted by the chassis manufacturer to match the customer requested color.

**3.3.1 TWO TONE CAB PAINT**

The cab shall be painted two (2) colors. The paint break line shall be approximately 3" below the window line. The break line shall be trimmed with a ½ inch black pin stripe. The pin stripe shall encircle the entire cab. Cab paint shall be PPG, Sikkens or DuPont base coat-clear coat system.

Upper Color: WHITE  
Number: 817U / FTB91776

Lower Color: RED / VERMILLION  
Number: 55141 / FTB75377

Provide one (1) pint of touch-up paint for each exterior color upon apparatus delivery.

**3.3.1.1 AERIAL DEVICE PAINTING**

The color of the aerial ladder shall be white, painted to the manufacturer's highest standard matching the above white paint.

If the standard finish of the aerial ladder is a zinc coating, the three inner ladder sections will be finished in that manner and only the base section will be painted white.

**3.3.1.2 TILLER CAB PAINT**

The tiller cab exterior will be painted in a two-tone paint scheme; white roof over red body with a standard belt line, PPG, Sikkens or DuPont base coat-clear coat finishing system, or equal.

Cab interior sections requiring paint will be painted exterior body color red.

**3.3.1.3 TRAILER BODY FINISH**

The trailer body will be painted with PPG, Sikkens or DuPont base coat-clear coat finishing system, or equal.

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**3.3.2 LETTERING & STRIPING**

Lettering and striping will be computer generated 3M "ScotchLite", reflective acrylic vinyl appliqué with a black drop shadow. Scheme shall match existing PFD Aerial apparatus.

Up to sixty (60), three (3) inch computer generated gold vinyl letters/numbers with 1/8 inch black outline will be provided to coincide with the Fire Department's existing lettering.

Up to forty (40), computer generated gold vinyl letter with black outlines will be provided on each side of the aerial base section for the City's name. Fire Department shall provide photos of lettering style.

Two (2) Philadelphia Fire Department seals will be affixed to the cab's front doors, City to provide seals.

All compartments must be numbered with decals to match the existing fleet of apparatus. Two (2) PFD designated body compartment roll up doors will require the following lettering scheme: "RIT" in light blue letters affixed to a white block background and located high as possible.

Provide up to 50% of rear facing tiller apparatus body with red and yellow chevron striping.

A Scotchlite reflective "STOP" sign shall be affixed on the interior panel of each tractor cab door.

**UNIT NUMBERING**

Up to four (4) 12 inch gold Scotchlite numerals will be provided to affix to the cab sides.

Up to four (4) 12 inch aluminum numerals painted gold outlined in black will be provided to be affixed to the front bumper and the rear of the apparatus. Due to engine airflow requirements Scotchlite lettering may be affixed to cab grille in place of aluminum plate.

Up to six (6) 2 inch block style gold Scotchlite numbers for City assigned property number shall be affixed to front of cab. Further details shall be discussed at the preconstruction conference.

**SCOTCHLITE STRIPE**

A six inch high gold "Scotchlite" stripe will be provided. The stripe will be applied on a minimum of 60 percent of each side of the unit, 60 percent on the

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rear of the unit and 40 percent on the front of the unit. The Scotchlite stripe layout will be determined by the Fire Department.

**3.4 AUTOMATIC LUBRICATION SYSTEM**

The chassis, superstructure and trailer shall be equipped with an automatic centralized chassis lubrication system, which must meet or exceed the following specifications:

A 12 volt DC driven pump, shall deliver the lubricant over reinforced, abrasion resistant flexible lines to spring loaded pistons as distributors (where applicable) to fittings. The distributor shall be capable of dispensing a metered amount of lubricant in the off -time of the lube cycle. An LED indicator lamp will be provided in the cab for visual monitoring of system performance. The 6-liter capacity pump/reservoir shall be in an inconspicuous but accessible location, protected from inclement weather and road splash.

This system shall lubricate locations including tractor, fifth wheel, turntable & trailer except driveline. Further details shall be discussed at the preconstruction conference regarding the timer power supply source and lubrication interval.

Rubber reinforced lines must be used throughout from pump to distributors, no steel. Provide plastic lines from distributor to grease fitting and only metal manifolds shall be provided, **no plastic.**

**Ref: SKF-Vogel model KFU6-20 or approved equal**

**4.0 BODY AND COMPARTMENT SPECIFICATIONS**

Since this is a tractor and ladder combination; all information will be included in the aerial section beginning with Section 37.0.

**5.0 CAB & BODY EQUIPMENT**

**5.1.1 CLIMATE CONTROL SYSTEM**

Two (2) heavy duty 6" diameter defogger fans with metal blade and protective metal guards will be installed on the cab ceiling, one (1) on each side of the windshield center post area. The fans will be installed on swivel style base assemblies and a three-position switch on this base will control each fan, allowing for "Low", "High" and "Off" settings.

The chassis must be provided with the highest capacity HVAC system the manufacturer can provide. It shall be capable of handling ambient temperatures from 0 degrees Fahrenheit to 95 degrees Fahrenheit with 95% humidity. Approximate total system BTU requirements: 70,000 AC & 100,000 HEAT.

Provisions will be made to provide and position heating/defrosting vents to adequately defrost the window areas as well as to evenly distribute heat and air conditioning

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throughout the cab including the front and rear foot well areas. Under seat heaters are allowed to meet heat at foot well areas in both front and rear sections. The controls must be in the reach of the driver and shall consist of a three-position blower control switch with high, low and off positions, a heat/defrost selector switch and an infinite temperature control switch with a range from hot to cold. If there are separate controls for rear compartment, then the controls for the rear unit will be accessible to the rear cab occupants and be installed in a manner that will prevent damage to the control unit, preferably located overhead.

The air conditioning system compressor must be mounted on the engine manufacturer's accessory bracket only with a pad style mount being preferred.

### **5.1.2 CAB INSTRUMENTS, GAUGES AND CONTROLS**

These instruments and warning lights shall be installed in the dashboard, driver's side. Gauges and warning lights shall be of the backlit design and labeled, also to include all engine emissions control lights and switches.

- Electric speedometer with odometer
- Electric tachometer with hour meter
- Oil Pressure gauge with warning light and alarm
- Engine Coolant Temperature with warning light and alarm
- Voltmeter with warning light and alarm
- Transmission Temperature gauge with warning light and alarm
- Transmission "Check Trans" light (electronic transmission indicator)
- Dual needle or separate air pressure gauges with low air warning light and alarm
- ABS and ATC warning lights, ATC switch (normal/spin) including trailer ABS
- Jake Brake control (2 switches one on/off and a second for low/med/high)
- Parking brake indicator
- Combination electronic fuel gauge shall be provided (Diesel & DEF)
- Low fuel level and water in fuel/water separator warning lights
- Cab unlatched warning light
- Alternator warning light
- Low coolant warning light
- Turn signal indicators
- High beam indicator
- Engine air filter restriction indicator light
- Stop Engine Lamp (SEL)
- Check Engine Lamp (CEL)
- Malfunction Indicator Lamp (MIL)
- Diesel Exhaust Fluid (DEF) Lamp
- High Exhaust System Temperature (HEST) Lamp
- Aftertreatment Diesel Particulate Filter (DPF) Lamp
- Generator Switch and indicator light
- Engine hour meter (Hobbs) must be supplied if not integral with dash instruments

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Battery and Ignitions switches with indicator lights  
Automatic Lubrication System service light

**AERIAL SWITCHES AND INDICATORS TO BE LOCATED (GROUPED) IN DRIVER’S SIDE AREA OVERHEAD**

Aerial Power Switch with Indicator light  
Aerial PTO Power Switch with indicator light  
Green PTO engaged indicator light  
Red Jack knife indicator light with alarm  
Two (2) Outrigger deployed lights (1) one each outrigger  
Red Lock Out Cylinder down indicator light  
PTO hour meter

**VEHICLE SIGNAGE**

**Provide signage indicating Maximum Height Clearance, Gross Vehicle Weight and Total Length. Must be dash mounted in view of both driver and officer. All signage must be of a permanent type material plate. No stickers.**

**5.1.3 WINDSHIELD WIPERS**

Self-parking dual, electric operated, pantographic type windshield wipers shall be provided. One (1) electric drive motor for each wiper is preferred but other manufacturer’s standard systems are acceptable. Wipers shall have "HI/LO" and "INTERMITTENT" operating speeds.

Windshield washers shall be electric operated wet-arm type with a readily accessible 3/4 gallon washer fluid reservoir.

**5.1.4 SUN VISORS**

Two (2) or (3) padded sun visors will be mounted on the cab ceiling, forward of the driver's and officer’s seat positions, one (1) each side and center as needed. Visors must cover entire windshield space across cab.

**5.1.5 INTERIOR CAB LIGHTING**

Provide two (2) high intensity adjustable swivel LED map lights located in the cab ceiling above the center of the dash, one (1) for the driver and one (1) for the officer.

Provide four (4) flush-mounted clear LED courtesy lights, with automatic door switches, one (1) at each step or door entrance, to illuminate upon opening any cab door.

Provide six (6) flush-mounted LED dome lights with individual switches located in the cab, one (1) between each rearward and forward facing seating area and one (1) next to both the driver’ position and the officer’s position. They will be capable of either providing red light for night vision or clear for maximum brightness. The lights will able to be controlled by a switch on each base and also by the cab door switches. White or clear lights must operate when doors are opened.

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**5.1.7 CAB GRAB HANDLES**

Four (4) interior grab rails will be provided to assist in cab entry; one (1) will be mounted on each forward door post at all cab entrances.

**5.1.8 OCCUPANT SEAT BELTS**

All seating positions shall be equipped with ABTS. Install seat belt stalks, largest length available for use by a fully dressed firefighter. Further details shall be discussed at the preconstruction conference.

**5.1.9 CAB MIRRORS**

Provide **West Coast Style** power mirrors of metal design and chrome finish, no plastic. One (1) 6.00" by 6.50" convex mirror will be installed on each side. The mirrors will be positioned in a manner that will minimize "blind spots" in the driver's forward and side vision.

**5.1.10 RUSTPROOFING**

Areas to be rustproofed (wet, airless spraying, no mist applications) shall include but not be limited to:

Light wells, doors, rocker panels, rear vertical door jams, front pillars, fender and fender wells, entire underbody, etc. The rustproofing compound shall be in accordance with MIL SPEC QPL 62218, or latest revision. All surfaces shall be properly prepared and finished.

**NOTE:** If rustproofing option is other than the above, submit detailed specifications of materials and process for approval.

**5.1.11 EXTERIOR GRAB HANDLES**

Provide four (4) NFPA 1901 compliant 1-1/4 inch aluminum knurled grab rails, one (1) at each cab door opening. They shall be approximately 18 inches to 32 inches in length.

**Ref: Hansen International Grab & Hand Rail Systems or approved equal**

**5.1.12 AUXILIARY 12 VOLT OUTLETS**

There shall be two (2) battery hot automotive type 12 volt auxiliary electrical outlets (power points) with covers mounted on the central dash panel for accessory items.

**5.1.13 VEHICLE FLUIDS SIGNAGE**

As required by NFPA 1901, manufacturer will affix a permanent plate in the driver's compartment specifying the quantity and type of fluids used in the vehicle.

**6.0 FRAME**

The frame will be constructed to withstand the heavy requirements of the fire service and carry a lifetime warranty against cracks and failure. It will be constructed of ASTM A-514 steel channel

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with 110,000 psi (minimum) yield strength. No bracket, hanger, cross member or any other part will be welded to the frame rails.

Full-height crossmembers will be bolted in place using Huck-Bolt fasters or body bound Grade 8 nuts and bolts. All structural frame fasteners will be made in the USA, foreign or off-shore fasteners will not be acceptable. The top flange will be free of bolt heads and other mounting obstructions. To protect the strength and integrity of the frame, no notching or welding will be permitted on the upper or lower flanges of the frame rails.

Crossmembers shall be formed steel and reinforced. The spacing shall sustain the chosen Gross Vehicle Weight Rating, permit properly engineered installation of chosen chassis components and support a lifetime warranty against cracking of either rail in emergency vehicle service.

**6.2 FRAME ATTACHMENTS (TOW HOOKS)**

Two (2) chrome plated eyes shall be mounted to the front frame rail extension by the chassis manufacturer at a position which maintains an angle of approach compliant to NFPA 1901, 2009 or latest edition

Two (2) 1" thick rear tow plates with 3" diameter holes will be welded to the trailer frame, one (1) on each side. The tow plates will be painted red. Stainless steel trim plates will be installed around the rear tow plates

**6.3 FRAME LINER**

Full frame liner "C" channel inner frame reinforcement shall be provided and installed. The inner liner shall be formed to a "C" channel shape to fit the contours of the mainframe rail without exceeding the flange width. Provide proper preparation along with surface coatings between main frame and liner to prevent corrosion once fastened together.

**6.4 FRAME STRENGTH**

Combined, the section modulus for the 7/16" frame shall be 31.18 cubic inches, per rail, and the RBM shall be 3,432,000 pounds/foot per inch, per rail, with yield strength of 110,000 psi, per rail.

**7.0 AXLES AND SUSPENSION SYSTEM**

**7.1 FRONT TRACTOR SUSPENSION**

The front suspension shall be of the design for a minimum capacity of 20,000 pounds using tapered leaf springs. Front spring bushings shall be graphite impregnated bronze spring pin with grease seals.

**REAR TRACTOR SUSPENSION**

The rear suspension shall be air ride. The suspension system shall have a design capacity for the axle and vehicle weight. Locate the height control valves outside the frame rail if

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vehicle engineering permits. Configure on a separate air tank with 60 psi pressure protection if vehicle engineering permits.

**Ref: SAF-HOLLAND / Neway or approved equal**

**7.2 SHOCK ABSORBERS**

Heavy duty, double acting shock absorbers shall be provided front and rear.

**Ref: Koni Brand or approved equal**

**7.4 OMIT**

**7.5 FRONT & REAR AXLES**

The front axle shall have a minimum beam and spindle capacity of approximately 20,000 pounds. It shall be provided with grease packed wheel bearings and seals along with cast iron hubs.

**Ref: Meritor model MFS-20-133AN or approved equal**

The rear axle shall be fire/emergency rated at approximately 27,000 lbs. capacity minimum. The axle set shall include single reduction hypoid gearing, oil lubricated wheel bearings and cast iron hubs. Provide a magnetic oil drain plug.

**Ref: Meritor model RS-26-185 or approved equal**

**7.5.1 ALIGNMENT**

A wheel alignment shall be performed upon vehicle completion. Also ensure both tractor & tiller steering wheels are centered.

**7.5.2 REAR AXLE RATIO**

A gear ratio shall be selected for the specified drive train components to provide a road speed of 60 miles per hour.

**7.6** Provide a locking rear differential.

**7.7** Provide synthetic axle lubricant.

**8.0 BRAKES**

**8.3 AIR BRAKE SYSTEM**

A dual circuit, air operated braking system, meeting the design and performance requirements of FMVSS-121 and the operating test requirements of NFPA 1901, latest edition shall be installed. The system shall be powered by an engine mounted, gear driven air compressor protected by a heated air dryer.

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The air system shall be plumbed with reinforced, color coded nylon air brake tubing in conformance to SAE J844-94, Type B and U.S.D.O.T. standards. The compressor discharge shall be plumbed with stainless steel braided hose lines with a Teflon lining.

Nylon air lines shall be enclosed in high temperature convoluted loom run along the inside frame rails, secured with non-conductive, corrosion resistant strapping mounted with stand-off fasteners. Cord reinforced rubber hose lines with brass fittings shall be installed from frame rail to axle mounted air connections. **Push-on quick connect type connectors / fittings for airbrake system and / or accessories are discouraged but acceptable. Threaded ferrule type connectors / fittings are preferred if available.**

The air tanks are to be painted as follows: Wet Tank-Black; Primary Tank-Green; Secondary Tank-Blue & Auxiliary Tank-Yellow. All air tank mountings shall be accessible for service and or removal of tank from underneath the chassis without body or crossmember interference.

A provision for an air inlet port with shut off valve shall be provided in the driver's door stepwell to facilitate charging of the vehicle air system. It must be plumbed to the vehicle's "wet" tank and include a 3/8" N.P.T. female bulkhead fitting for the installation of a customer-supplied quick disconnect fitting. The port will be properly labeled as to its function.

**8.3.1 LABELED AIR TANK DRAIN VALVES**

A heated automatic drain valve shall be installed on the wet tank. Also provide an air tank drain system plumbed to a central location with ¼ turn brass valves that encompasses all air tanks, tractor & trailer. Each drain line shall have a pass through shut off valve at the applicable tank for protection. Two (2) central locations are required, left side cab and trailer stepwell areas. Further details shall be discussed at the preconstruction conference.

**8.4 AIR DRYER**

An air dryer with heater shall be installed on the frame rails of the cab chassis, outside the frame rails is preferred. Easy access to replace the cartridge must be provided.

**Ref: Bendix model AD-IP or approved equal**

**8.5 ABS BRAKING SYSTEM**

A 4-channel Anti-Lock Braking System including Automatic Traction Control (ATC) with four (4) wheel sensors and four (4) modulators to control and compensate braking force at each wheel shall be installed. Protection is required for both the tractor and trailer; therefore a separate trailer ABS system will be installed. Refer to section 38.6.1.

Install a dash mounted ATC switch & diagnostic lights per systems requirements. Labeled ABS systems diagnostic interface connectors must be provided at tractor & tiller cab dashes.

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**Ref: Meritor WABCO or approved equal**

**8.6 REAR BRAKES**

“S” cam full air actuated drum type brakes shall be supplied.

**Ref: Meritor Cam Master Q-Plus 16.5 inches X 8.625 inches or approved equal**

**SLACK ADJUSTERS & BRAKE STROKE INDICATORS**

The rear brakes shall be equipped with axle manufacturer’s standard automatic slack adjusters. Also provide visual brake stroke indicators for these rear drum brakes.

**Ref: Spectra Products Brake Safe or approved equal**

**PARKING BRAKE CONTROL**

The control shall be a yellow push/pull air valve mounted on the central dash panel where it shall be within easy reach of both the driver and the officer.

**REAR BRAKE CHAMBERS**

The rear brake chambers shall be "30/36" spring brake chambers mounted on the forward side of the single drive rear axle or forward axle of dual drive.

**8.7 FRONT BRAKES**

The front brakes shall be air actuated disc type.

**Ref: Meritor model EX225-17 with fire & emergency severe service brake pads or approved equal**

**8.8 ACCESSORY AIR SYSTEM**

An accessory air tank will be supplied for use with the air horns and other vehicle accessories. The accessory tank will be charged through a pressure protection valve to protect the air brake system from being drained below 90 psi by the accessories.

A provision for an air outlet will be provided in the driver's door step well to facilitate the use of the vehicle’s air system to supply accessories outside the apparatus. The air outlet will be plumbed through a pressure protection valve to eliminate the chance of undesired air pressure loss to the air brake system. A 3/8" N.P.T. female bulkhead fitting will be provided for the installation of a quick disconnect fitting and the port must be properly labeled as to its function.

**8.9 AIR COMPRESSOR**

The engine driven air compressor shall have a minimum rating of 18.7 cfm airflow. The air compressor discharge line shall be stainless steel braid reinforced Teflon hose.

**Ref: WABCO # SS318 or approved equal**

**8.10 AIR COMPENSATOR SYSTEM**

Provide a 125VAC line voltage air pump & protective shut down timer. These units shall be mounted behind the driver’s seat & powered through the vehicle shoreline inlet with a

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125VAC duplex receptacle mounted within the area, hardwiring is unacceptable. Furnish a ventilated metal cover over this system to properly protect it from damage.

**Ref: Kussmaul model #'s 091-9HP & 091-150-115 or approved equal**

**9.0 ENGINE**

**9.2** The engine shall be an electronically controlled, turbocharged, six (6) cylinder, four-cycle, developing a minimum of 500 bph at 1,800 rpm. Engine torque shall be a minimum of 1850 lb. ft. at 1200 RPM. A certified engine curve will be provided which will show gross horsepower, gross torque and fuel consumption of the proposed engine. Engine and fuel system must be compatible for use with Bio-diesel fuels of various blends to B20.

**Ref: Cummins ISX15 or approved equal**

**9.3** The diesel engine shall be Fire & Emergency rated by the manufacturer and incorporate an emissions system derate exemption emergency vehicle calibration if available. Idle reduction engine shutdown device shall be disabled, if applicable, in accordance with federal and state exemptions.

**9.4** The requested diesel engine shall be currently certified in all respects by the engine manufacturer for fire & emergency usage in the bidder's proposed chassis.

**10.0 ENGINE EQUIPMENT**

**10.1 FULL FLOW OIL FILTERS**

Engine oil filters shall be engine manufacturer branded or approved. Engine oil filters shall be accessible and easily serviced or replaced.

**10.4 ENGINE GOVERNOR**

Top governed speed limit allowable will be 60 MPH per NFPA 1901, latest edition.

**10.5 AIR CLEANER**

The engine air cleaner shall be the size recommended by the engine manufacturer; have a dry type element; include a burning ember separator and be easily replaced by tilting the cab. Provide a sealed system designed to prevent water from entering the intake pipe or air cleaner, especially standing water as a result of street flooding.

A mechanical air inlet restriction gauge shall be visible through the service access door and trigger a dash mounted warning light in the event of an air inlet restriction.

**Ref: Donaldson or approved equal**

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**10.6 ENGINE PROTECTION ALARMS**

The engine shall be equipped with an alarm system for low oil pressure, high coolant temperature and low coolant level. The system shall warn the driver or aerial operator of a potentially damaging engine operating condition. This warning system will not shut down the engine or reduce power under any conditions.

**10.7 OMIT**

**10.8 FAST IDLE**

A fast idle control system set at 1400 rpm (or as otherwise required) shall be included with the electronic engine and controlled by a dash mounted switch.

**10.9 ENGINE COMPARTMENT LIGHTS**

Two (2) LED work lights shall be installed in the engine enclosure and fed power through the battery switch.

**10.10 ENGINE STARTER**

Provide a starter with over crank protection (OCP) controlled by dash mounted switches.

**Ref: Delco Remy or approved equal**

**10.11 ENGINE BRAKE**

An engine brake will be provided utilizing dash switches controlling On / Off and Low / Medium / High positions. The engine brake will be interlocked to the vehicle parking brake so that it is automatically inhibited from engagement when the vehicle is in non-road operation and be wired in such a manner so as to illuminate the chassis brake lights when the engine brake is engaged and operating. It will also be interfaced with the ABS system to be disabled if wheel lock-up is detected. Provide aggressive braking by choosing Engine Brake Preselect in 2<sup>nd</sup> gear.

**Ref: Jacobs Vehicle Systems or approved equal**

**10.12 MAGNETIC FILL/DRAIN PLUGS**

The engine drain plug shall be equipped with a magnet.

**10.13 EXHAUST**

Provide EPA emission approved exhaust system.

The tail pipe will terminate on the right side of the apparatus just ahead of the rear axle. All exhaust piping shall be protected against damage from vibration, torque and frame flexing. Exhaust must exit horizontal with no extension and connect to a Nederman point source exhaust capture system currently installed in PFD Fire Stations. Further details shall be discussed at the preconstruction conference.

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**10.13.1 EXHAUST HEAT SHIELD**

Proper heat shielding shall be provided in an effort to minimize engine compartment temperatures.

**10.14 DIESEL EXHAUST FLUID TANK**

A minimum five (5) gallon diesel exhaust fluid (DEF) tank shall be provided and installed. The tank fill shall be accessible through a door in the crew area stepwell. A DEF fluid level sensor shall be included with the DEF tank and connected to a level gauge on the dashboard. Operators must be able to fill this tank without tilting the cab.

**11.0 TRANSMISSION**

**11.1** The chassis shall be equipped with a six (6) speed automatic transmission, factory filled with approved TES 295® synthetic fluid and equipped with the latest generation operating controls programmed for fire apparatus vocation. Transmission installation will be in accordance with the manufacturer’s specifications allowing easy removal for repairs / replacement. The manufacturer’s heaviest duty transmission oil cooler shall be furnished.

An electronic oil level sensor system (OLS) shall be provided as well as a diagnostic reader port connection. The transmission's sixth gear shall be an overdrive ratio, activated through a mode button, permitting the vehicle to reach its top speed at the engine's governed speed. In addition, the transmission shall be programmed to downshift to second gear during exhaust brake application for aggressive braking.

**Ref: Allison 4000EVS or approved equal.**

**11.2 MAGNETIC DRAIN PLUG**

Provide a magnetic drain plug for the transmission.

**11.3 TRANSMISSION SHIFTER**

An illuminated, touch-pad type shift control shall be mounted in the cab, convenient to the driver and be approved by the transmission manufacturer.

**11.4 POWER TAKE OFF(S)**

The apparatus will be equipped with two (2) power shift PTO’s driven by the chassis transmission. Indicator lights, as well as a clear description of what each PTO switch controls; will be located in the cab next to the PTO switch to show engagement. Further details shall be discussed at the preconstruction conference.

**11.5 DRIVELINE**

Provide a heavy duty drive line assembly **utilizing half round yokes** that is statically and dynamically balanced.

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The chassis shall contain two (2) drive line guard loops utilizing a design that encircles the main drive line to the rear axle. They must attach to the frame and contain the drive line in the event of a failure.

**Ref: Meritor model 18T, Dana (Spicer) 1810 or approved equal**

**12.0 STEERING**

**12.1 STEERING GEAR**

Steering gear will be the integral hydraulic type. The system will allow for static steer in a fully loaded condition on a smooth surface while at idle. If hydraulic failure should occur, manual steering will be available, allowing the driver to control the apparatus.

A highly maneuverable apparatus is desired. The manufacturer will state the maximum that can be provided and also provide a blueprint of the proposed turning radius.

The steering system will be a closed loop system and will have no other hydraulic loads imposed on the system other than the apparatus steering and will not share hydraulic fluid with any other chassis function.

An additional gear driven power steering pump or tandem model pump will be mounted to the engine for use on the apparatus tiller axle.

**Ref: Ross, Sheppard or approved equal**

**12.2 STEERING COLUMN**

The steering column shall be a tilting and telescoping type, designed to collapse under impact. It shall have infinite adjustment within its range of operation and be controlled by a lever or an air operated foot switch. The steering column shall have a self-canceling turn signal switch with a headlamp dimmer switch, windshield washer switch and hazard flasher controls located in the control stalk. A steering wheel, minimum of 18 inches in diameter shall be provided.

**13.0 COOLING SYSTEM**

The vehicle's cooling system will be specifically designed for a fire-service, high performance diesel engine and be able to provide adequate cooling during extended periods of full load operation in local ambient temperatures to 110<sup>0</sup> F.

**13.1 RADIATOR**

Where possible and where the following requirements meet or exceed the engine manufacturers requirements, the chassis shall be equipped with a high capacity down flow 1300 square inch radiator or greater. The radiator core shall be made of copper and brass with metal top and bottom bolt on tanks if possible. Bidders shall provide in detail

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the construction of their radiator and justification for construction if not as described above.

There shall be an electronically controlled low coolant display mounted on the instrument panel and a sight glass in the radiator to check the coolant level without removing the radiator cap.

The engine cooling system shall meet all test requirements for performance required by the respective engine manufacturer. The radiator core shall be compatible with all commercial antifreeze solutions. If a surge tank is to be utilized, it must also be of heavy duty metal construction.

**13.1.1 RADIATOR DRAINCOCK**

The radiator plumbing shall provide a drain cock for coolant evacuation.

**13.1.2 RADIATOR SKID PLATE**

The radiator installation shall include a heavy-duty radiator skid plate if available to protect the radiator from debris or obstructions under the chassis. The skid plate shall be designed so the angle of approach is not affected.

**13.2 ENGINE COOLANT**

Engine coolant shall be heavy-duty pre-mixed extended life ethylene glycol antifreeze and meet all requirements of engine manufacturer. It will also provide anti-freeze protection to at least -34 degrees Fahrenheit.

**13.3 FAN DRIVE**

Provide appropriate air operated fan clutch for this application. There shall also be a 95 PSI protection valve installed in feed line to prevent fan slippage during startup.

**Ref: Horton DM Advantage 2 speed or approved equal**

**13.4 COOLANT HOSES**

The chassis shall be equipped with heavy duty four (4) ply silicone radiator hoses with stainless steel constant torque hose clamps. All smaller diameter hoses such as surge tank will also be heavy duty four (4) ply silicone with applicable stainless steel clamps. Bidders must provide with their bid proposal the type of hoses to be supplied for review and approval by OFM.

**Ref: Purosol, Flexfab or approved equal**

**13.5 HEATER HOSES**

The vehicle shall be equipped with flexible and formed hard line heater hoses to provide flow of coolant water to the front and rear heater cores. The heater hoses shall be loomed, insulated and constructed of heavy duty four (4) ply silicone. All hose T's or unions must be metal, plastic is unacceptable.

**Ref: Purosol, Flexfab or approved equal**

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**13.6 CHARGE AIR COOLER**

Provide a charge air cooler constructed of aluminum with cast aluminum side tanks and mounted directly ahead of the radiator and to the radiator headers. Rubber isolators shall be used at the mounting points to reduce the transmission of vibrations.

The connections between the engine and charge air cooler shall be made using high temperature silicone hoses rated for use in temperature up to 500°F and heavy duty stainless steel constant tension T-Bolt spring hose clamps. These connections must adequately allow for movement of the engine relative to the charge air cooler.

**14.0 ELECTRICAL SYSTEM**

Multiplex wiring is not required on cab, chassis or tiller body but is acceptable as manufacturer’s standard in cases of no option to hard wire. Purchaser prefers a hardwired electrical system.

**Ref: Weldon V-MUX or approved equal when multiplex is standard**

**If a hard wired electrical system is available at no upcharge the vendor MUST provide it.**

**14.1 VEHICLE WIRING**

The apparatus shall be equipped with a heavy-duty 12 volt DC wiring system. All body module electrical equipment shall be served by circuits, separate and distinct from the vehicle chassis circuits. All relays breakers, fuses, components and solenoids are to be are to be function labeled and mounted above frame rails. Power distribution modules are to have circuit function labels, fuse / breaker ampacities and or wiring schematics affixed to their covers. All terminal strips will be provided with a cover unless fully enclosed by other means. A detailed wiring diagram, which is specific to this vehicle as built, will be provided with the service manual.

The electrical system will provide ease of service with simple access to components for troubleshooting and repair. The cab design will incorporate wire runways for installation and protection of chassis and body manufacturer installed wiring harnesses along with removable panels for access. The vehicle wiring will be multi-conductor copper of a gauge rated to carry a minimum of 125 percent of the maximum current for which the circuit is protected, and will have GXL, SXL or TXL cross-linked high temperature insulation.

All wiring, non-hydraulic hoses and tubing throughout shall be protected by non-flammable, fire retardant (FR) convoluted plastic split loom (**highest temperature rating available**) in all chafe areas and clipped with rubber protected steel clips. The individual wires shall be color and circuit labeled throughout. Provide **DEUTCH** type connections for chassis-to-body wiring. Electrical connections shall be crimped and soldered and covered with heat shrink tube where exposed to the elements. All remaining

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connections must use a military type crimp and may not be of insulation displacement type.

All electrical equipment switches will be mounted on a switch panel in the cab, convenient to the driver. Light switches will be of the rocker type with an integral indicator light to show when lights are energized and be appropriately identified using a back-lit panel with mounted legend inserts.

Provide a covered six (6) circuit power / ground bus connected 12 volt hot at all times and mounted behind the driver’s seat. Cab mounted flashlight chargers will be connected to this unit.

**Ref: Blue Sea Systems P/N 5025 or approved equal**

**14.2 ELECTRICAL LOAD MANAGEMENT SYSTEM**

A load management system shall be provided and be capable of offering load sequencing, load shedding, fast idle control, low voltage warning, scene mode operation and response mode operation. The load manager shall have a digital display to indicate system voltage in normal operation mode and also indicate the output configuration during programming mode. It shall also be protected against reverse polarity and shorted outputs, and be enclosed in a metal enclosure to enhance EMI/RFI protection.

**Ref: Class 1 TSM or approved equal**

**14.3 DOT APPARATUS LIGHTING**

**PROVIDE ALL LED LIGHTING, INCLUDING HEADLIGHTS FOR THE CAB CHASSIS IF AVAILABLE, OEM OR AFTERMARKET.**

Install all applicable stop, tail, turn signal, marker, clearance, ID, back up & license plate lamps along with required reflex reflectors. This illumination system must comply with all applicable requirements prescribed for it by FMVSS / CMVSS 108. Include chrome or aluminum guards where applicable and desired by purchaser.

**Ref: Whelen Engineering, Truck-Lite or approved equal**

Provide dual halogen rectangular sealed beam headlights on the front of the cab, two each side, in a common bezel. The headlights will be equipped with an electronic “wig-wag” feature. A rocker switch in the cab dash switch panel will activate the flashing system.

**Ref: H4651 and H4656 or approved equal**

**14.4 DOOR “OPEN” WARNING SYSTEM**

Two LED warning lights in full vision of the driver and officer as well as an audible alarm shall be provided and trigger in the event of any cab door (including tiller cab) and or compartment being open. The two lights shall operate as follows: red light for cab doors and amber light for aerial body / cabinet doors.

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**14.5 ALTERNATOR**

Provide a pad mounted 320 amp alternator that is engine driven via a serpentine belt. Unit must be serviceable without removal of other components.

**Ref: Leece-Neville M/N: 4962PA or approved equal**

**14.6 12 VOLT DC BATTERY SYSTEM**

Provide a single system consisting of six (6) group 31T, 12-volt DC heavy duty, high cycle AGM truck batteries. The battery bank shall have a total rating of 6600 cold cranking amperes (CCA) minimum. Do not isolate any batteries.

The battery group shall be mounted on either side of the frame rails in **stainless steel** rigid cross-braced trays. Battery installation shall provide drainage for accumulated fluids and shall meet TMC (Truck Maintenance Council - American Trucking Association) recommended practice RP 125, for battery mounting.

A hinged access door will be installed in each canopy step rear riser for access to the batteries if available through manufacturer’s design or install a set of battery jumper studs with protective caps on the left side battery box. Each battery storage tray assembly and adjacent metal parts, which may be subject to corrosion from battery leakage, will be stainless steel with a flooring of Dri-Dek, no plywood. Ample battery ventilation and drainage will be provided.

Cables will be protected from abrasion wherever they pass through a metal compartment wall by means of loom and rubber grommets. Battery and related electrical cables that are assembled with a ring terminal must be soldered and protected with heat shrink material.

**Ref: ODYSSEY Model 31-PC2150 or approved equal**

**14.6.1 BATTERY CHARGER**

A 45 amp on board battery conditioner / charger shall be provided and installed behind the driver’s seat. Furnish a ventilated metal cover over the unit to properly protect it from damage. Subject charger shall be wired through the vehicle shoreline inlet to a 125VAC duplex receptacle mounted within the area, hardwiring is unacceptable.

**Ref: IOTA Engineering DLS-45/IQ4 or approved equal**

**14.6.1.1 CHARGE INDICATOR DISPLAY**

Provide two (2) battery charger indicator displays, one (1) at each shoreline inlet location.

**Ref: Kussmaul model # 091-189-12 or approved equal**

**14.7 125VAC LINE VOLTAGE POWER INLETS (Shoreline)**

The vehicle shall be equipped with two (2) permanently mounted, non-arcing, male recessed-type receptacles with hinged covers. Mount one (1) on each side of the cab at centerline height. These inlets shall be straight three-prong type and shall include the

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female adapter plugs. It shall be designed so that the plug will automatically eject from the inlet in the event that the vehicle is started while still plugged in. The shoreline system shall be designed to handle a 20 amp load and be function labeled per applicable NFPA standards. Interface the receptacles through an applicable transfer switch.

**Ref: Kussmaul Super Auto Eject or approved equal.**

**PROPERLY ISOLATE / DIODE PROTECT VEHICLE CHASSIS STARTER CRANK CIRCUIT UPON INSTALLATION**

Provide a 125VAC duplex receptacle from the power inlets & mount behind driver’s seat to allow termination of both the battery charger and air compensator pump. Do not hardwire these two (2) items.

**14.8 12 VOLT DC TRAILER ELECTRICAL SYSTEM**

All electrical circuits in the body will be protected by automatic circuit breakers, conveniently located to permit ease of service. Flashers, heavy-duty solenoids and other major electrical controls will be located in a central area near the circuit breakers. All solenoids and relays are to be function labeled.

All wiring will be color and function coded every 3" to 6", easy to identify, oversized for the intended loads and installed in accordance with a detailed diagram. A complete wiring diagram will be supplied with the apparatus.

Wiring will be carefully protected from weather elements and snagging. Heavy-duty loom will be used for the entire length. Grommets will be utilized where wiring passes through panels.

In order to minimize the risk of heat damage, wires run in the engine compartment area will be carefully installed and suitably protected by the installation of heat resistant shielded loom.

All electrical equipment will be installed to conform to the latest federal standards as outlined in NFPA 1901, latest edition.

**14.9 AERIAL ELECTRICAL JUNCTION COMPARTMENT**

An electric junction compartment will be provided near the aerial turntable. This compartment will be recessed through the rear wall of the body to provide an easily accessible enclosure to house the entire aerial device wiring junction points, terminal strips, solenoids, etc. All wiring for the aerial device including outrigger, diverter valve, and swivel circuits will be enclosed in this compartment. The design of this compartment will not decrease the storage capacity area of the body in which it is located. Junction box must be located above the top height of the frame rail.

**14.10 STEP LIGHTS**

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LED step lights will be provided and controlled with marker light actuation as well as parking brake application. Step lights will be located to properly illuminate all body and chassis access steps along with walkway areas.

**Ref: Whelen, TecNiq or approved equal**

**14.11 125/250VAC LINE VOLTAGE ELECTRICAL SECTION**

**14.11.1 HYDRAULICALLY DRIVEN GENERATOR**

Provide one (1) Hydraulic Driven Generator rated at 10,000 watts.

The generator shall be designed and assembled by a company with no less than 20 years experience in the manufacture of hydraulic driven generators. Its components shall be housed in a structural steel frame, which affords protection to the components and provides a unitized mounting module. A generator cover consisting of NFPA approved diamond tread plate shall also be provided.

The unit shall have top access to the oil filter, oil fill tube and electrical interface box. The hydraulic oil reservoir shall include an oil level sight gauge visible from three sides; an oil temperature gauge; an oil fill cap; an oil filter and an internal venturi boost unit to provide positive pressure to the pump suction port. The reservoir shall also be shipped attached to the structural steel frame and have an option to be remote mounted if required.

A meter package that provides the frequency, voltage and amperage of each leg shall be provided. The generator shall not utilize electronic controls or a multiplex system to control the frequency.

The generator shall include a bypass solenoid to remotely turn the generator on/off with a 12 VDC signal fed through the vehicle's neutral safety switch. In turn, the unit will function only when vehicle is stationary.

The system shall be capable of producing the full nameplate power when driven from the vehicle PTO from idle to maximum engine speed. The hydraulic pump shall match the system with the proper orifice, pressure compensator, and load sense settings to provide stable output regardless of engine rpm or electrical load demands. Use of electronics to control the flow shall not be allowed.

The system shall be capable of normal operations using a commonly available premium hydraulic oil; Mobile DTE series or equivalent. All fluid service points shall be in close proximity to the reservoir for ease of scheduled maintenance.

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When properly installed, the system shall be warranted for a period of not less than five (5) years.

The generator shall be tested at the full nameplate rated load prior to shipping and the test report shall be included. The test report will document the generator's performance at various loads from no load to full load to ensure reliable power delivery at those loads.

**Ref: Harrison Hydraulic Solutions model MAS or approved equal**

**14.11.2 GENERATOR MONITORING DISPLAY**

Provide a FROG (Frequency Readout of Generator) display kit and install near the AC Line Voltage Main Circuit Breaker Panel (Load Center).

**Ref: Harrison Hydraulic Solutions or approved equal**

**14.11.3 HOT SHIFT PTO**

Provide a 'hot' shift PTO for the hydraulic generator installation. A guarded switch shall be used to disconnect the PTO from the transmission in the event of hydraulic system failure (broken hose, etc.) during operation. The PTO shall remain 'engaged' to keep fluid circulating through the system so that when you wish to 'excite' the generator, you may do so with a separate switch mounted on the dash or in another operator accessible area. If the switch does not include a light, an indicator light shall be supplied. This light shall be energized when the generator is 'excited'.

**14.11.4 GENERATOR MOUNTING**

The generator shall be properly mounted in the forward "A" compartment assembly on the tractor portion of the apparatus.

**14.11.5 AC LINE VOLTAGE LOAD CENTER**

There shall be an electrical load center furnished and installed in a protected environment. The load center shall have provisions for twelve (12) manual reset type circuit breakers. Further details shall be discussed at the preconstruction conference regarding load center location.

**14.11.6 CORD REELS**

Two (2) labeled cord reels holding 200' of 10/3, type SEOW 600V yellow electrical cord will be mounted on each side of the apparatus, above the generator. Each cord reel will be connected to the on-board generator and protected by a 20 amp GFCI circuit breaker. The cord reel retraction motors shall be weatherproof or enclosed in a weatherproof covering.

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Provide two (2) lighted yellow receptacle boxes with aluminum tread plate mounting brackets, direct wired with Chinese finger style strain reliefs to the cable of each cord reel. These boxes shall also incorporate NEMA L5-15 receptacles.

**Ref: Hannay, Circle D, Akron or approved equal**

**14.11.7 ELECTRICAL RECEPTACLES**

Provide two (2) properly labeled NEMA L5-15R 125VAC receptacles, each on GFI protected circuits. Include weatherproof spring loaded covers and locate on each side of the body at the stationary panel next to each front outrigger.

**14.12 FIREFIGHTER FLASHLIGHTS & INSTALLATION**

Provide one (1) Streamlight Survivor Lantern 12 volt DC Bank Charger P/N 90401 and locate in tractor cab on top of engine tunnel. This is a charger only installation, no Survivor Flashlights are required.

Provide three (3) yellow Streamlight P/N 45875 E-Spot LiteBox Flashlights with 12 volt charging racks. Install two (2) in the tractor cab on the engine tunnel and one (1) on the R/S floor of the tiller cab.

Further details concerning flashlight mounting locations shall be discussed at the preconstruction conference.

**14.13 EMERGENCY WARNING LIGHTS**

All warning lights will be configured to comply with the NFPA 1901 lighting standard. In order to provide some standardization, Whelen Series 600 Super LED lights must be used for all lighting as needed. Exact placement locations shall be discussed at Pre-construction.

An LED light bar will be installed on the cab roof. It shall consist two (2) front corner red linear LED's, two (2) front red linear LED's, two front white linear LED's and two (2) red side linear LED's.

**Ref: Whelen Edge Ultra Freedom P/N: FN72QLED or approved equal**

Red flashing LED rectangular lights will be provided on the front of the cab above the headlights, two (2) each side in a common bezel matching the headlight bezel.

**Ref: Whelen 600 Series Super LED or approved equal**

Two red (2) LED beacons, one on each side, will be installed on the upper rear stanchions of the tiller cab area.

**Ref: Whelen model L31HRFN or approved equal**

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An LED directional warning light will be installed at the rear of the apparatus on the tiller cab below its rear window. This light will be activated by a control box in the cab.

**Ref: Whelen Traffic Advisor or approved equal**

**14.14 NON-WARNING LIGHTS – CAB**

Provide two (2) 12 volt DC LED (minimum 160 watts) floodlights with top raise telescoping poles and install at cab rear, one (1) at each corner. Each light will be wired through an accessible waterproof Deutsch electrical connector to provide a disconnect point for maintenance. Delete lamp mounted on/off switches and control with officer’s side individual cab dash switches. Further details shall be discussed at the preconstruction conference.

**Ref: Whelen Engineering Pioneer Plus Dual Series or approved equal**

One (1) LED boat-type light with a clear lens will be installed on the top of the cab roof, centered and as short as possible, to assist the tillerman with lining up the trailer with the cab.

Provide LED ground lighting per NFPA requirements.

**14.15 NON-WARNING LIGHTS – TRAILER BODY**

Provide two (2) six inch diameter LED spotlights with unit mounted switches and locate on the side rear corners of the trailer body, one (1) each side. The lights will rotate 360 degrees.

**Ref: Unity model AG-R-P46SLC or approved equal**

Provide two (2) six inch diameter LED flood lights with unit mounted switches and install for equipment storage area illumination along the top of the trailer body, one (1) on each side. The lights will rotate 360 degrees.

**Ref: Unity model AG-R-P46WLC or approved equal**

The steps to the turntable and tiller cab will be provided with adequate LED lighting.

Provide LED ground lighting per NFPA requirements.

**15.0 TIRES & WHEELS**

**15.2 FRONT TIRES**

Both tires shall be designed for the GAWR specified along with vocation and balanced (no balancing compounds):

Front Tires: Steel belted radials, tubeless (Highway Tread)

Size: 315/80R22.5 LOAD RANGE "L"

**Ref: Michelin XZUS 2 or approved equal**

**15.2.1 FRONT WHEELS**

MUST BE FILLED IN

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Provide two (2) aluminum 10 bolt hub piloted front wheels approximately 22.5" x 9.0", 20,000# GAWR MINIMUM to match front axle load. Include wheel separator plates between all wheels and hubs. Chrome-plated hub and nut covers will be provided on each axle. Rims shall include no polish, easy clean optional surface treatment applied outset & inset. Flatter face rim design desired with 3.12 inch inset if available.

**Ref: Alcoa Aluminum with Dura-Bright or approved equal**

**15.3 REAR TIRES**

All four (4) tires shall be designed for the GAWR specified along with vocation and balanced (no balancing compounds):

Rear Tires: Steel belted radials, tubeless (Mud/Snow Tread)

Size: 315/80R22.5 LOAD RANGE "L"

**Ref: Michelin XDY3 or approved equal**

**15.3.1 REAR WHEELS**

Provide four (4) aluminum 10 bolt hub piloted rear wheels approximately 22.5" x 9.0", 27,000# GAWR MINIMUM to match rear axle load. Include wheel separator plates between all wheels and hubs. Chrome-plated hub and nut covers will be provided on each axle. Rims shall include no polish, easy clean optional surface treatment applied outset & inset.

**Ref: Alcoa Aluminum with Dura-Bright or approved equal**

**15.5 SPARE TIRES**

Provide additional tires and wheels (mounted, balanced & surface treatment) as spare units.

**15.5.1** Provide one (1) spare for the front tractor axle.

**15.5.2** Provide one (1) spare for the rear tractor axle.

**15.5.3** Provide one (1) spare for the tiller axle as per Section 37.5.1.

**15.7 OMIT**

**15.8 CHAINS**

Two (2) complete sets of single tire chains will be provided for the rear tractor axle tires.

**Ref: Security/Peerless Super Z-Chain or approved equal**

**15.9 TIRE MONITORING SYSTEM**

Each tire on the tractor & tiller shall be equipped with a visual indicator that will indicate tire air pressure. Tires shall be provided with metal chrome valve extensions installed as needed to readily add air or visually read indicator. All vehicle tires shall have correct tire pressure at vehicle delivery.

**Ref: Real Wheels Corporation Tire Watch Brand or approved equal**

**15.10 WHEEL CHOCKS**

MUST BE FILLED IN

FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

Four (4) rubber wheel chocks appropriate to tire size will be installed on tractor rear fenders using aluminum diamond tread plate holders. Further details shall be discussed at the preconstruction conference.

**15.11 MUDGUARDS**

Heavy duty black rubber mud guards will be provided behind the front and rear wheels.

**15.12 LOOSE LUG NUT INDICATORS**

Provide indicators at all tractor & tiller wheel positions of the vehicle. Utilize chrome lug nut covers with an indicator if available. Further details shall be discussed at the preconstruction conference.

**Ref: RWC Lug Check, IMI Checkpoint or approved equal**

**16.0 FUEL SYSTEM**

**The entire system including the tank must be compatible with Biodiesel blends up to B20.**

**16.1 FUEL TANK**

The chassis shall be equipped with a 50-gallon fuel tank constructed of aluminum with anti-surge baffle and provide a minimum 50-gallon "draw" capacity on an incline in any direction up to 8 degrees. The fuel tank shall be certified to meet FMCSR 393.67 tests and also include a magnetic 3/4" drain plug.

**16.2 FUEL FILL**

The fuel tank shall be equipped with a labeled minimum 2.5" filler neck assembly located on the left hand side of the tank. A fuel fill cap attached with a lanyard shall be supplied.

**16.3 FUEL COOLER**

The chassis shall be equipped with an air-to-fuel cooler to prevent loss of engine horsepower from rising fuel temperature.

**Ref: Hayden Brand or approved equal**

**16.4 REINFORCED FUEL LINES**

The fuel lines shall be wire braid reinforced fuel hose with crimped brass fittings. The lines shall be carefully routed along the inside of the frame rails, protected against chaffing by non-conductive frame mounted standoff fasteners and convoluted split loom as needed in chaff areas.

**16.5 ELECTRIC FUEL PRIMER SYSTEM**

Provide per NFPA 1901 latest edition. A function labeled momentary rocker switch, mounted on the cab dash, shall activate the system.

**16.6 FUEL FILTRATION**

Provide a diesel fuel processor assembly with a thermostatically controlled heater and "water in fuel" sensor with dash indicator. Final installation shall allow for total access to change filter and must be approved by OFM.

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**Ref: Davco Fuel Pro 384 or approved equal**

**17.0 SAFETY EQUIPMENT**

**17.1 ROAD SAFETY KIT**

Provide one (1) DOT approved 2.5 lb. ABC fire extinguisher and one (1) reflective triangle kit containing three (3) bidirectional emergency reflective triangles.

**17.2 BACK-UP ALARM**

An automatic self-adjusting electronic back-up alarm producing 87 - 112 db shall be installed at the rear between the frame rails.

**Ref: ECCO 907, PRECCO 1040 or approved equal**

**17.3 Omit**

**17.4 DUAL ELECTRIC HORNS**

Dual electric horns shall be installed under the cab and controlled through the horn ring on the center of the steering column. Include interfacing through a dash mounted selector switch allowing control of either the electric or air horn.

**17.5 AIR HORNS**

Two (2) bright finish 21" air horns shall be mounted through the center of the front bumper, one on each side. Air horn system activation will be accomplished by a foot switch located on both the driver's and the officer's side; along with the horn ring in Section 17.4.

**Ref: Hadley Brand or approved equal**

**17.6 SIREN**

An electro-mechanical siren with siren brake will be recess mounted in the center of the front bumper extension. The siren will be controlled with one (1) foot switch in the officer's side foot well area, far right hand side. A siren brake switch shall be included and located on the switch panel adjacent to officer's side. The unit will only be active when the Emergency Lighting Master Switch is on and shall include circuit protection for the battery positive supply cable. Also provide a redundant siren solenoid for an added emergency shutdown option.

**Ref: Federal Signal Q2B or approved equal**

**17.7 OPERATOR INSTRUCTION, CAUTION, AND WARNING SIGNS**

The manufacturer will supply and affix various operator instructions, caution, and warning signs to the front, sides, rear and inside of the apparatus. They will be in general compliance with ANSI Z35.1 (Specification for Accident Prevention Signs).

Caution and warning signs will include, but not be limited to the following:

- |                                                 |                          |
|-------------------------------------------------|--------------------------|
| Electrocution Hazard                            | Siren Warning            |
| Personnel seated/belted while vehicle in motion | Vertical Clearance       |
| Hazardous Voltage                               | Moving Outrigger Warning |

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<u>Hydraulic System</u>	5 years / unlimited miles
<u>LED Lights &amp; Siren</u>	5 years /unlimited miles
<u>Paint</u>	7 years / unlimited miles
<u>Corrosion</u>	10 years / unlimited miles

NOTE: All minor repairs (over four (4) labor hours) shall be performed within 2 working days, Sundays excluded.

All major repairs shall be performed within 7 working days, Sundays excluded.

All warranty work performed by City forces will be billed at the rate of **\$52.00/hour**.

**BIDDER INITIALS** \_\_\_\_\_

Transportation to and from the vendor's site, if required, is the successful bidders responsibility. If transportation is performed by City forces it will be invoiced at **\$100.00/hour each direction, plus the cost of any equipment.**

**BIDDER INITIALS** \_\_\_\_\_

If the time intervals for minor and major repairs are exceeded, **the City of Philadelphia reserves the right to perform warranty work with direct invoicing to the successful bidder, not the manufacturer.**

**BIDDER INITIALS** \_\_\_\_\_

Copies of Warranty Repair Orders shall be forwarded to the Office of Fleet Management within five (5) days after completion of each repair, including all cost for parts and labor.

**BIDDER INITIALS** \_\_\_\_\_

**WARRANTY REGISTRATION**

The City of Philadelphia requires the successful bidder supply **WARRANTY REGISTRATION** of all warrantable components.

The warranty registration forms shall be supplied to the City, by the successful bidder, listing component description and serial number and chassis serial number. Each form shall require the signature of a representative of the City (OFM), the successful bidder and the subcontractor, where applicable.

If the successful vendor or their subcontractor supplies a standard warranty registration form which includes disclaimers, the City reserves the right to refuse to sign. If no other registration for can be supplied the City shall sign the standard form as a **"REGISTRATION ONLY"**.

The City recognizes only the warranty terms cited in the Invitation to Bid and agreed to in the contract awarded to the successful bidder, under Warranty, section 18 and Engineering Responsibility & Chronic Complaints/Failures, Section 35.

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The City reserves the right to hold final payment until all warranty registrations are completed and a copy of such registrations supplied to OFM. A city form is to be completed for each vehicle.

**BIDDER INITIALS** \_\_\_\_\_

**19.0 PRE-PRODUCTION INSPECTION**

- 19.1** Provide the Office of Fleet Management a pre-construction conference at the apparatus manufacturer’s main plant, for one person on each inspection trip. The successful bidder shall incur all expenses for lodging, meals, and transportation (transportation will be via air if more than 125 miles one way).
- 19.2** Provide the Office of Fleet Management a pilot inspection for the completed cab & chassis at the manufacturer’s plant, for one person on each inspection trip. The successful bidder shall incur all expenses for lodging, meals, and transportation (transportation will be via air if more than 125 miles one way).
- 19.3** Provide the Office of Fleet Management a mid-inspection for the body manufacture / up-fitter at the manufacturer’s plant, for one person on each inspection trip. The successful bidder shall incur all expenses for lodging, meals, and transportation (transportation will be via air if more than 125 miles one way).
- 19.4** Provide the Office of Fleet Management a final inspection for the completed apparatus at the manufacturer’s plant, for one person on each inspection trip. The successful bidder shall incur all expenses for lodging, meals, and transportation (transportation will be via air if more than 125 miles one way).

**21.0 QUESTIONS REGARDING BID**

All questions regarding Bid Specification should be directed to the Office of Fleet Management. Fred Harrison, 215-686-1879 / E-mail- [frederick.harrison@phila.gov](mailto:frederick.harrison@phila.gov)  
Bud Lipski, 215-686-1875 / E-Mail- [bud.lipski@phila.gov](mailto:bud.lipski@phila.gov)

**22.0 ILLUSTRATIONS & DRAWINGS**

**REQUIRED FOR THIS BID** **BIDDER INITIALS** \_\_\_\_\_

An approximate scale drawing of the proposed apparatus will be submitted with each bid.

The scaled drawings submitted with the bid will include the following:

- a. Overall height to the highest point of the apparatus from the ground.
- b. Sizes of all compartments: width, height, and depth, including clear opening dimensions.
- c. Overhang front and rear.

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- d. Wheelbase, Overall Length, and Overall Width of apparatus.
- e. Angles of approach and departure.
- f. Turning radius.
- g. All operating angles of aerial device, including over cab angle.

The drawing must show, but not be limited to, such items as the chassis being utilized, lights, horns, sirens, all compartment locations and dimensions, etc. In actuality, this blueprint will be a visual interpretation of the unit as it is to be supplied.

A blueprint must be approved by the Purchaser prior to any metal being sheared or cut for the unit. The Purchaser, the Manufacturer's Representative and the Apparatus Manufacturer will each have a copy of this blueprint. This blueprint will then become a part of the total contract.

**23.0 REPAIR PARTS & SERVICE**

Each Bidder must be able to display that they have in recent times and are currently maintaining an established service center and a parts depot capable of satisfying the warranty service requirements and parts requirements for the model and quantity of vehicles bid. Service Center must have supplied parts to at least ten (10) fire departments and serviced at least twenty (20) fire trucks within the past year.

The Bidder must state the location of an authorized service center, with a staff of factory-trained mechanics, well versed in all aspects of service for all major components, of the apparatus within a reasonable distance of the Purchaser. This service center must be not more than ninety (90) miles away from the delivery point. In addition, the successful Bidder must maintain a separate service facility at the manufacturing site, in order to satisfy the need for possible major emergency service work.

In order to assure the Purchaser that prompt, knowledgeable, professional representation is made on behalf of the manufacturer, the manufacturer must maintain a representative within a reasonable distance from the Purchaser. This representative must be competent and knowledgeable with respect to the sale and service of fire apparatus and emergency vehicles. Said representative must make available factory-trained mechanics that are competent in the servicing and maintenance of the product offered and must be equipped to offer prompt service on the product at the Purchaser's in-service location. These mechanics must hold current and valid certifications from the manufacturer.

**24.0 CERTIFICATION OF COMPLIANCE WITH SPECIFICATIONS**

The bidder shall certify on the form furnished with the Invitation and Bid that the Truck, component units, and parts shall be suitable for the work to be performed and will be constructed to definite standard dimensions, with proper clearance and fits; that previously published or set ratings shall not arbitrarily be raised without prior approval of the manufacturer of the actual unit and further, that the truck offered shall comply in every respect with the terms of this specification. In the event that the

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truck offered does not comply with this specification, the bidder shall state definitely, referring to the proper paragraph of this specification, where the Truck he proposes to furnish does not comply. Where no statement is received, the successful bidder shall be required to meet every requirement of the specification.

**A SCAAN Analysis of the proposed vehicle will be supplied by the bidder when the bid is submitted. The SCAAN Analysis will be at full GVWR for the proposed vehicle.**

**BIDDER INITIALS \_\_\_\_\_**

**25.0 REQUIREMENTS**

General - Though they shall not be specifically enumerated herein, all parts necessary to provide a complete and efficient truck shall be furnished. All parts shall conform to current engineering practices of the industry relative to design, strength, quality of material and workmanship. The City reserves the right, at its option alone, to accept trucks with minor deviations from this specification.

**26.0 MATERIALS**

The Truck and all parts thereof shall be made of materials which are suitable for the intended service and shall be produced by current standard manufacturing processes. The materials shall be free from characteristics or defects which affect the appearance or which shall affect the proper functioning of the finished product.

**27.0 GROSS VEHICLE WEIGHT AND DRY CHASSIS WEIGHT RATINGS**

These shall be as specified in the Invitation to Bid. The gross vehicle weight rating shall include the weight of the complete tractor drawn aerial apparatus.

**30.0 SHIPMENT AND DELIVERY**

**30.1** Delivery Information - Final Delivery shall be made between the hours of 8:00 AM and 3:30 PM, Monday through Friday, except City Holidays. Each unit shall be accompanied by a Delivery Slip which will contain the City's Bid Number, Item Number, Purchase Order Number, and Serial Number of the Unit.

**VENDOR MUST NOTIFY OFM, THIRTY (30) DAYS PRIOR TO MAKING ANY DELIVERY.**

DELIVERY CONTACT PERSON: FRED HARRISON (215-686-1879)  
BUD LIPSKI (215-686-1875)  
OFFICE OF FLEET MANAGEMENT  
100 S. BROAD STREET, 3RD FLOOR  
PHILADELPHIA, PA 19110

DELIVERY LOCATION: OFFICE OF FLEET MGMT. SHOP 1

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PUBLIC HEALTH & SAFETY FACILITY  
100 E. HUNTING PARK AVENUE  
PHILADELPHIA, PA 19124  
215-685-9100

**30.3 DELIVERY CONDITIONS**

**30.3.1** Vehicles, regardless of delivery point, shall be ready for use including all lubricants, coolant and operating fluids as required, minimum of 30 gallons of diesel fuel and equivalent amount of DEF (diesel exhaust fluid), if required. Battery shall be fully charged and tires properly inflated.

**31.0 INSPECTION**

**31.1 Pennsylvania State Inspection**

Each vehicle shall pass the Vehicle Code Examination of the Department of Transportation, Commonwealth of Pennsylvania; when delivered, chassis vendor shall have attached current State Inspection Stickers in the proper location.

**31.2 Exhaust Emissions Inspection (If Required)**

All vehicles with GVW's subject to the provisions of the Pennsylvania Department of Transportation exhaust emission regulations must meet said requirements and have the appropriate sticker affixed to the windshield, along with the State Vehicle Inspection Sticker, when the vehicle is delivered to the City.

**31.3** City Inspection - City Inspection of delivered vehicles will be conducted at the specified delivery point. It will be conditioned upon the satisfaction of all of the requirements of this specification and the Invitation to Bid.

Upon **final delivery to the City**, any vehicle(s) not meeting the requirements of the specification and the Invitation to Bid will be rejected. All rejected vehicles must be removed from the City's equipment delivery location within 48 hours of notification to the bidder / vendor.

**BIDDER INITIALS** \_\_\_\_\_

Upon **final delivery to the City**, in addition to liquidated damages (if applicable), the City at its sole discretion will charge the vendor / successful bidder a re-inspection fee of **\$150.00** for each occasion a vehicle(s) / equipment not meeting the requirements of the specification and the Invitation. This re-inspection fee will be assed each occasion a unit must be re-inspected.

This re-inspection fee will be deducted from the invoice for unit(s) not meeting the requirements of the specification and the Invitation to Bid.

**BIDDER INITIALS** \_\_\_\_\_

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**31.4** OFM, Bureau of Quality Assurance, shall be notified when the Pilot or First Production Model is available for inspection.

**32.0 CERTIFICATIONS & MANUALS (PER ORDER)**

**32.2** Provide the necessary documents for the City to take Title to the vehicle in accordance with the Pennsylvania Motor Vehicle Code.  
**ALL THE ITEMS, INVOICE (STATE ORIGINAL), MSO, MV-1 (COMPLETED), COPY OF THE SECOND STAGE STICKER) ARE TO BE HAND DELIVERED FOURTEEN (14) DAYS PRIOR TO DELIVERY TO:**

**CITY OF PHILADELPHIA  
OFFICE OF FLEET MANAGEMENT  
BUREAU OF QUALITY ASSURANCE  
100 S. BROAD STREET, 3RD FLOOR  
PHILADELPHIA, PA 19110**

**32.3 OPERATION, MAINTENANCE AND REPAIR DATA**

Prior to the delivery of the first units, the vendor shall forward directly to the Office of Fleet Management, Maintenance, Operating and Repair manuals and Parts Lists as specified below. The manuals shall be shipped separately to OFM 100 S. Broad Street 3rd Floor, Phila, Pa. 19110 and not with the units. All manuals shall be in the form of neatly bound books, with durable covers, and shall be properly identified with the manufacturer's name, model and serial number of the equipment.

The operating and maintenance or shop manuals shall be the latest manufacturer's handbook, covering in detail the recommended operating, maintenance and service procedures.

Where components or equipment of several manufacturers have been used in manufacturing the unit, the manuals shall include operating, maintenance and repair information and parts lists of all manufacturers covering all of the components used. Where the vendor or manufacturer uses components manufactured by others in building equipment which he sells under his own trade name, he shall furnish the parts numbers and full data of the original manufacturers of all components used, where possible, as well as the part numbers he may assign to these components as being parts of his product.

**32.3.1 MANUALS**

One (1) set of "as built" printed manuals shall be furnished for each unit delivered.

Each manual shall cover chassis, body, superstructure, engine, transmission, differential, hydraulic system and all other added equipment. Operating Instructions and schematics including:

- |                          |                          |
|--------------------------|--------------------------|
| Maintenance Instructions | Emission Diagrams        |
| Repair Instruction       | Electric Wiring Diagrams |

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Parts Information  
Air Plumbing Diagram  
Component Locator Diagram

Collision  
Operator’s Instructions  
Aerial Operation & Maintenance

Provide a complete list of parts, part numbers with reference drawings (exploded views) used to complete vehicle. This must be a true “replacement” part number listing and not a line sheet. Parts manual will disclose all proprietary parts used in assembly.

**Also provide a CD or memory stick of the above listed manuals.**

Provide an eight-year subscription to all manufacturer’s issued Service Bulletins (two for each vehicle supplied under this order).

**NOTE: Provide two (2) additional sets of operators manuals, these manuals are to be delivered one month prior to delivery.**

**32.3.1.1 SOFTWARE**

Provide software package(s) for all components: engine, transmission, brake, hydraulic and electrical systems. Cost shall include all required hardware (excluding a computer), and all licensing fees for one year.

**BIDDER INITIALS** \_\_\_\_\_

**32.3.1.2 LAPTOP COMPUTER**

Provide one (1) fully-rugged laptop loaded & operational with software requested in section 32.3.1.1 for vehicle diagnostics. Include applicable current 64-bit Windows Operating System compatible with all diagnostic software and the following minimum requirements:

Display: 14 inch minimum HD LED touchscreen 1366x768

CPU: 2.9GHz min.

Storage: 500GB min.

RAM: 16GB min.

Battery Operation: Max. Available

Warranty: 3 year limited, parts & labor min.

**Ref: Dell Latitude E6430 ATG or approved equal**

**BIDDER INITIALS** \_\_\_\_\_

**32.3.2 PREVENTIVE MAINTENANCE INSTRUCTIONS**

In addition to the manuals specified above, the vendor shall furnish an equal number of condensed Preventive Maintenance Instructions for all parts of the unit. These instructions shall consist of manufacturers' recommendations for periodic lubrication, cleaning and other preventive maintenance services, and shall be made up in a binder covering the particular unit delivered.

**32.3.3 RECOMMENDED SPARE PARTS**

The vendor shall furnish with each service manual a list of recommended spare parts, not a line sheet. The list shall include all necessary data for ordering the parts, even if originally furnished by other manufacturers. All proprietary parts shall be listed as

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such. The vendor warrants that they shall maintain or have maintained a stock of repair parts within the Philadelphia Metropolitan area at inventory levels for the period described hereafter:

The manufacturer shall supply, through a dealer, a published price list for spare parts required to support the units to be manufactured hereunder for ten (10) years from the date of delivery of the last unit.

Technical and field service support shall be provided by the vendor, if necessary. This support shall be by personnel qualified to advise on training, repair and maintenance of the equipment. The technical representatives shall be available in the Philadelphia Metropolitan area when required by the City.

The repair or shop manuals shall include but not be limited to detailed drawings, electric, pneumatic and/or hydraulic schematics, piping diagrams and other pertinent information.

**33.0 SIGNS**

Signs, decals, and etc. showing dealers name and/or address, shall not be permitted on the outside of the unit.

**34.0 INSTRUCTIONS & TRAINING (PER-ORDER)**

The vendor shall furnish three (3) video training DVD's, covering the following subjects (if available):

- Operator Training
- Routine Maintenance
- Preventive Maintenance

If the vendor does not have video training DVD's available at the time of the bid opening, it shall be acceptable to the City that the vendor tape the training sessions at the time of the training, making three (3) copies available to the City.

In addition, the vendor shall instruct City employees in the operation, (see program outline below) servicing and maintenance of the units or equipment delivered at the following City facilities and at such times as the Authority Having Jurisdiction (AHJ) may designate, all within thirty days after final acceptance of the first unit.

**34.1 OPERATORS**

Provide operator training, one (1) day per platoon, to four (4) platoons totaling four (4) days total training for PFD personnel. The training program shall be designed to instruct the individual who has never utilized an aerial device of this type before. The individuals will be thoroughly taught the operating systems of the aerial device, including emergency operation. Introductory service skills utilizing the vehicle shall also be taught.

**BIDDER INITIALS** \_\_\_\_\_

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**34.2 TECHNICIANS**

Provide technician training for a class group of five (5) technicians per day (four (4) days minimum) by a certified factory trainer on all components used in the manufacturing of the unit. All required training equipment and materials shall be supplied and be included in the cost. The training facility shall be within the city limits.

**BIDDER INITIALS** \_\_\_\_\_

**35.0 ENGINEERING RESPONSIBILITY & CHRONIC COMPLAINTS/FAILURES**

The term **CHRONIC COMPLAINTS/FAILURES**, as used herein, shall mean that the same component, sub-component, assembly or part, such as an engine, transmission, differentials, hydraulic system, pumps, etc. including valves, controls, water pumps, high pressure water systems, etc. develops repeated defects, breakdowns, and/or malfunctions.

The responsibility for the design of this equipment shall rest upon the successful vendor, and they shall consider all elements of operation for which the warranty shall apply. The successful vendor shall be responsible for the compliance and performance of each subcontractor, including all suppliers. Where the equipment, units and/or sub-components develop **CHRONIC COMPLAINTS /FAILURES** during service operations, the successful vendor will be required to make any engineering design changes, repairs, alterations, and retrofits or to make an adequate heavy duty redesign of any component so as to properly correct and continue to render continuous, durable and safe performance. Warranty periods shall be for an additional one year, measured from the completion date of any corrective measures. This additional warranty shall not expire at the end of the initial warranty period even when the correction is performed in the last days of the original, stated, warranty period.

Minor items or ordinary service adjustments are not included nor considered under this scope of **CHRONIC COMPLAINTS/FAILURES**. Conditions caused by other factors such as operational damage due to accidents, vandalism, misuse, or lack of proper maintenance, service, lubrication as prescribed or recommended by the Original Equipment Manufacturer (OEM) are also excluded.

Records and reports will be maintained by the Office of Fleet Management and will be made available for the successful vendor's periodic examination relative to **CHRONIC COMPLAINTS/FAILURES**.

The successful vendor shall provide written reports to the City, detailing the action taken as a result of a notice of complaint describing the failure. Any written notices of complaints or field action with corrections made shall be forwarded directly to the Office of Fleet Management, 100 S. Broad Street, 3rd Floor, Philadelphia, PA 19110, Tel. (215) 686-1825, FAX (215) 686-1829, in numbered report identifying the vehicle's property number, part or serial number of the failed component, with copies to the Engineering Section, same address.

For a fair and equitable evaluation of the **CHRONIC COMPLAINT/FAILURE**, the successful vendor, when notified of service difficulties, will be permitted to make detailed studies, analyze operational conditions and will have access to the equipment in order to make recommendations for corrections so as to obtain the desired safe and durable mechanical performance.

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To reduce or eliminate **CHRONIC COMPLAINTS/FAILURES** on equipment, the City, as part of this contract, shall designate a Technical Review Committee, consisting of the Fleet Manager, Deputy Fleet Manager and Operations Manager of the affected equipment, to review, analyze and evaluate any successful vendor’s remedies.

In the event the successful vendor fails to address, or make the proper changes, repairs, modifications, retrofits, or does not render field service after written notice, or unnecessarily delays any actions, the Office of Fleet Management shall have the option of seeking appropriate restitution for loss of production.

The successful vendor shall also be subject for Loss of Use, in the form of rental, lease payments, or a \$200.00 per day fee, while a vehicle is rendered unserviceable or out-of-service.

**36.0 COMMUNICATION EQUIPMENT SPECIFICATIONS**

Each vehicle will be outfitted by the City with a Motorola digital mobile radio system. The vendor shall provide 12 volt DC protected radio power supply circuits as follows:

At center dash area: (15 amps capacity) one (1) of each, battery hot, ignition hot & ground terminated to a covered terminal strip

At officer’s seat base: (50 amps capacity) one (1) of each, battery hot, ignition hot & ground terminated to covered black & red terminal studs

Provide and install one (1) Motorola Control Head Power Cable to the center dash terminal strip listed above.

**Ref: Motorola P/N: HKN6188A or approved equal**

Provide and install an NMO antenna base on the cab roof and route cable to officer’s seat base area.

**Ref: Motorola P/N: RRDN6798A or approved equal**

Provide and install two (2) sets of applicable length radio cables with routing between the center dash area & officer’s seat base. Referenced cables are seventeen (17) feet in length; contractor is solely responsible to install the correct length required by their apparatus design.

**Ref: Motorola P/N: HKN4356B & HKN6169A or approved equal**

**36.1 MOBILE DATA TECHNOLOGY (MDT)**

Each vehicle will be outfitted by the City with a laptop computer and docking station. The vendor shall provide a 12 volt DC protected power supply circuit as follows:

At officer’s side center dash area: (15 amps capacity) one (1) of each, battery hot & ground terminated to external dash mounted red/black screw type terminals (trucker CB radio terminals)

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Provide and install one (1) surface mount, low profile cellular/GPS communication antenna on the cab roof. Route cables to officer's side center dash near power supply terminals. Punch & grommet a hole in the dash panel area for external cable access as needed. Supply a channel or other protective passageway along with interior access plates to allow for replacement of this antenna and cable, should that ever become necessary. This antenna will also require some type of replaceable mounting plate or enclosure for possible future antenna model replacements of different designs. The exact design and locations will be discussed at the pre-construction conference.

**Ref: Mobile Mark P/N: SM-U15-1A2C-WHT or approved equal**

Successful bidder will also be responsible to mount laptop docking stations at the officer's side dash area. The docking stations will be supplied by the City for this purpose. Further details shall be discussed at the preconstruction conference.

**37.0 100' FOOT AERIAL LADDER SPECIFICATIONS**

**37.1 INTENT OF AERIAL SPECIFICATIONS**

The intent of these specifications is to describe a tractor drawn; 100 ft. four (4) section steel telescoping aerial ladder of the true steel truss ladder type that will fully meet the requirements of NFPA 1901, latest edition.

**37.2 REFERENCES**

A list of five (5) **in-service** units of the aerial device proposed will be provided by the manufacturer of the aerial device. This list will include the Fire Department's name and address, chief's name, and telephone number.

**37.3 TRAILER CHASSIS COMPONENTS**

**37.3.1 TRAILER WHEEL BASE**

The trailer will be designed to provide maximum compartment space and shortest possible overall length utilizing a wheel base not more than 312".

**37.3.2 TRAILER AXLE**

Provide an appropriate steering axle with a minimum of 22,000 lb. capacity or with such a capacity as recommended by the manufacturer. The wheel bearings need to be grease packed.

**Ref: Meritor MFS-20-133A-N or approved equal**

**37.4 TRAILER SUSPENSION**

Provide an air ride suspension & heavy duty shock absorbers having a capacity comparable to that of the trailer axle.

**Ref: Ridewell or approved equal**

**37.5 TRAILER WHEELS & TIRES**

Provide two (2) aluminum 10 bolt hub piloted wheels approximately 22.50" x 12.25", 22,000 lbs. GAWR MINIMUM to match axle load or as recommended by the manufacturer. Include wheel separator plates between all wheels and hubs. Chrome-plated hub and nut covers will be provided on each axle. Rims shall include no polish, easy clean optional surface treatment applied outset & inset.

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**Ref: Alcoa Aluminum with Dura-Bright or approved equal**

The trailer tires will be 425/65R 22.5 “L” tubeless radial with traction tread or as recommended by the manufacturer.

**Ref: Michelin XZY-3 or approved equal**

**37.5.1 SPARE TIRE**

Provide trailer spare, one (1) additional tire and wheel (mounted, balanced & surface treatment).

**37.6 TRAILER STEERING**

Provide an integral power steering gear box with a tilting, telescoping column and minimum 18 inch vinyl padded steering wheel.

**Ref: Ross TAS 70 and Parker or approved equal**

**37.7 TRAILER BRAKE SYSTEM**

Provide disc brake system of the largest available for vocation & rated suspension.

**Ref: Meritor EX-225, 17 inch or approved equal**

**37.7.1 ABS BRAKES**

Provide a trailer anti-lock brake system for the tiller steer axle with amber ABS indicator lights at the tractor and tiller cab dashes. Install a labeled diagnostic interface connector for said system in the tiller cab for maintenance personnel.

**Ref: WABCO Enhanced Easy-Stop 2S/1M or approved equal**

**37.8 AERIAL LADDER SUPPORT COMPONENTS**

**37.8.1 LADDER TRAVEL SUPPORT**

A steel ladder rest will be provided to support the ladder in the travel position. Stainless steel bedding plates will be attached to the ladder base section to protect the ladder when the unit is in its travel position.

**37.8.2 OUTRIGGERS**

Two (2) independently controlled outriggers will be provided that will meet or exceed the stability requirements of NFPA 1901. The spread of the outriggers is of special operational concern and the narrowest outrigger setup configuration is necessary. The outrigger jack spread will not exceed 14 ft.; therefore the City understands a manufacturer may need to derate the specified aerial ladder for a 250 pound tip load rating. Further details shall be discussed at the preconstruction conference.

**37.8.3 TRACTOR LOCK-OUT SYSTEM**

Flexing between the tractor and trailer during aerial operation will be reduced by providing a trailer lock-out system. Provide as such if manufacturer’s design dictates.

**37.8.4 SAFETY FEATURES**

The outrigger system will provide the following safety features:

1. If an “H” type outrigger is offered, a system to ensure that all outrigger beams are fully extended before the jack cylinders can be lowered will be provided.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

2. If an “H” type outrigger is offered, a momentary override safety switch to allow operator discretionary placement of an outrigger jack with the beam at less than full extension will be provided.
3. A ladder cradle/outrigger interlock system will be provided to prevent the lifting of the aerial from the nested position until the operator places all jacks in the load supporting configuration. Green indicator lights will be provided at the outrigger control stations to indicate circuit completion. A mechanically fastened limit switch at the ladder rest will prevent operation of the outriggers once the aerial has been elevated from the nested position.
4. A ladder rotation/outrigger interlock system which, if the outriggers are not fully extended on one side, will prevent the ladder from being rotated past the centerline of the truck to the “short jacked” side. Aerial control must not lock up or lock out at any time. Proximity switches must be mechanically fastened.
5. A red warning light and momentary safety switch will be provided at the aerial operator's control console. The red warning light will warn the operator that outriggers are not fully extended in the event the apparatus has been set up with one (1) outrigger beam not fully extended. Engaging the momentary safety switch will allow the operator to operate the aerial controls for aerial operation within safe parameters.
6. Red warning lights and a buzzer at the driver's side cab overhead instrument panel which will activate when the outriggers and or tractor lock-out system are not stowed.

**37.8.5 OUTRIGGER PADS**

Two (2) auxiliary outrigger pads will be provided, manufacturers standard or composite type.

Two (2) auxiliary outrigger pad storage brackets will be constructed under the 5<sup>th</sup> (fifth) wheel area on each side of the apparatus. Further details shall be discussed at the preconstruction conference.

**37.8.6 OUTRIGGER LEVELING INDICATOR**

Two (2) bubble type leveling indicators will be provided to assist in outrigger set-up and leveling of the apparatus, one (1) at each outrigger control station.

**37.8.7 OUTRIGGER DEPLOYMENT WARNING ALARM**

An outrigger deployment-warning device will be provided to warn personnel in the vicinity of the apparatus that the outriggers are in motion. Whenever an outrigger control handle is utilized, the device will produce a pulsing tone, separate and distinctive from that of other audible warning systems provided on the apparatus.

**37.8.8 OUTRIGGER LIGHTS**

Two (2) 4" white LED ground illumination lights will be located beneath the outrigger beams to illuminate the ground area for night operation.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

If "H" type outriggers are offered, two (2) 7" LED type double-faced red flashing lights will be mounted on the inner vertical surface of the outer jack box structure below the horizontal beam.

**37.8.9 OUTRIGGER CONTROL**

An illuminated outrigger control station will be provided on both sides of the apparatus near the front of the trailer. The controls must be mounted inside a box with a door for maximum protection.

If an "H" type outrigger system is offered, each outrigger will be independently controlled in both in/out and up/down modes to allow vehicle set-up in restricted areas or on uneven terrain.

The following features will be provided, clearly identified and suitably illuminated for ease of operation:

- a) Fast Idle Switch - A two-position, up/down toggle switch located on the control panel to activate the Engine Fast Idle.
- b) Emergency Power Unit (EPU) Switch - A spring-loaded switch to activate the 12 volt emergency hydraulic power system.
- c) Outrigger Control Handles - One (1) control handle per outrigger. If an "H" type outrigger system is offered, provide two (2) control handles per outrigger; one (1) to extend/retract the outrigger beam and one (1) to raise/lower the outrigger jack.
- d) "Outrigger Deployed" Indicators - A green light for each outrigger, located on the panel in the vicinity of its respective outrigger controls, to indicate when the outrigger jack is in the load supporting position.
- e) Interlock Override Switch - Locate on both control panels to utilize short-jacking features and include flip-up protective toggle switch covers.
- f) Lock-Out System Controls - Provide deployment lights and switches as needed for manufacturers system if applicable.

**37.9 AERIAL LADDER COMPONENTS**

**37.9.1 EXTENSION/RETRACTION SYSTEM**

A full hydraulic powered extension and retraction system of the ladder will be provided through dual hydraulic cylinders and cables, each capable of operating the ladder in the event of failure of one of the systems.

The extension-retraction cylinders will be equipped with integral (on the cylinder) holding valves to prevent the unit from falling should the charge lines be severed at any point within the hydraulic system.

**37.9.2 LADDER SLIDE MECHANISM**

Slide pads or rollers will be used on load bearing surfaces and to control side sway of the sections.

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FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

**37.9.3 AERIAL LUBRICATION SYSTEM**

An above aerial rotation automatic lubrication system shall be provided on the apparatus. The system shall be a seven (7) point lubrication system with 2.7 liter capacity central lubrication pump mounted on the aerial ladder turntable. Also, easy access must be provided for visual capacity checks and replenishment. The assembly shall include metered, piston distributors at lubrication points for the ladder turntable. An electronic control unit shall be provided to monitor the system requirements and operation. The electronic control unit shall utilize an indicator light to alert the operator of any fault within the lubrication system.

**Ref: SKF (Vogel) or approved equal**

**37.9.4 TURNTABLE**

The turntable will be a fabricated steel weldment designed for the rotation and elevation of the ladder sections. All steps and running boards will be constructed from open Bustin- type grating. Forty-two inch (42") high, knurled aluminum safety railing will be provided at the rear and sides of the turntable. A safety chain will be provided across each corner opening.

An aluminum tread plate step will be mounted near the heel of the ladder to provide easy access to the ladder from the turntable deck. The step will cover the rotation motor and brake assembly but be easily removable for service of the drive assembly.

**37.9.5 CRADLE ALIGNMENT INDICATORS**

Stainless steel arrows overlaid with ScotchLite material will be provided on the turntable surface to indicate the alignment of the aerial ladder with the ladder travel cradle. The indicators will be suitably illuminated for nighttime operation.

**37.9.6 COMBINATION HYDRAULIC AND ELECTRIC SWIVEL**

Hydraulic power to the turntable hydraulic circuits will be provided through a three-port, high pressure hydraulic swivel permitting 360 degree continuous rotation of the turntable.

Electric power to the turntable electric circuits will be provided by a collector ring assembly, permitting 360 degree continuous rotation of the turntable.

**37.9.7 FOLDING STEPS**

Two (2) spring-loaded folding steps will be installed in the fly section of the ladder to provide footing for an operator stationed at the tip of the fly section. The spring mechanisms will hold the steps in place during use and secure the steps in the stowed position when not in use.

**37.10 HYDRAULIC SYSTEM COMPONENTS**

**37.10.1 HYDRAULIC SYSTEM**

The hydraulic system will provide power in as efficient a manner as possible. The system will be capable of operating under any rated platform load condition and aerial position at normal engine idle (slow idle) or governor controlled fast idle. The hydraulic pump will be capable of generating sufficient flows to allow multiple function operation without significant loss of speed.

The hydraulic reservoir will be of a sufficient size to provide enough fluid for the maximum utilization of the hydraulic system. The reservoir will be equipped with a gated drain line; and a gated suction line will be provided between the oil reservoir

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and the hydraulic pump. The reservoir will have an oil level sight glass and an easily accessible fill cap.

The system will be equipped with both a pressure and a return line filter. Filters will be equipped with easily visible dirt alarms. Both filters will be protected by bypass circuits to protect the system from extreme contamination caused by the breakdown of a neglected filter and subsequent release of previously trapped particles into the system.

The hydraulic system cylinders will be sized and rated in accordance with previously described structural safety factors. Hoses will be of the steel braided, rubber covered type and will be properly sized to reduce heat buildup during prolonged periods of operation. The system will not be dependent upon an auxiliary cooler to control system temperature.

Three (3) aerial control actuators will be located at the aerial control station to provide "Raise / Lower"; "Extension / Retraction"; and "Swing Left / Right" functions. The Extension / Retraction lever must have lock-out plate installed.

**37.10.2 POWER TAKE-OFF (PTO)**

The apparatus will be equipped with a PTO driven by the chassis drivetrain. A green indicator light will be located in the cab next to the PTO switch to show when the PTO is engaged. Said PTO will only engage with the chassis spring and/or parking brake set and the transmission in neutral to prevent unintentional movement of the chassis during hydraulic system operation.

**37.10.3 12 VOLT DC EMERGENCY HYDRAULIC SYSTEM**

The apparatus shall be equipped with a 12 volt DC emergency hydraulic power system. This back up system will be capable of returning the ladder to its road travel position in case of primary operating power source failure. The emergency hydraulic system will be able to be activated from both the aerial control console and the outrigger control stations.

The 12 volt DC system motor shall be fuse protected from its power source.

**37.11 AERIAL ELECTRICAL SYSTEM COMPONENTS**

Electrical power for the aerial device will be drawn from the chassis electrical system and routed into an electric collector ring assembly. The electric collector ring assembly will provide power for electrical ground, ladder control functions, 12 volt, and 125 volt AC system. The collector rings will be enclosed in a sealed, weatherproof housing to prevent corrosion. All aerial device wiring will be in harnesses with each circuit identified by number and color code. Harness interconnections will be through locking, weatherproof, guided pin connectors.

**37.11.1 ENGINE FAST IDLE ACTUATOR**

A fast idle actuator system will be provided to raise the engine RPM to a pre-set level for optimum aerial operation. The fast idle system will not activate unless the interlock systems have been applied, the chassis spring brake is set, and the transmission is in neutral. The aerial device will not be dependent upon the fast idle circuit to perform any rated task.

**37.11.2 AERIAL COMMUNICATION SYSTEM**

A two-way communication system will be furnished between the tip of the fly section, and the turntable control station. The communication control box, which

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includes "Talk" and "Listen" volume controls and a "Push to Talk" button, will be located at the turntable control console. A "hands-off" speaker/microphone which requires no operator attention will be located at the tip of the fly section.

**Ref: Atkinson Dynamics or approved equal**

### **37.11.3 HOUR METER**

An hour meter will be installed in the cab wired to the aerial PTO to record hours of operation of the aerial.

A second hour meter will be installed that will only capture actual aerial operation hours and should be mounted inside turntable console control pedestal for access only by maintenance crews.

### **37.11.4 AERIAL SPOTLIGHTS**

Two (2) 12 volt DC, 6 inch diameter LED spotlights with On/Off switches will be mounted at the heel pin area of the base ladder section, one (1) on each handrail. The spotlights will be capable of swiveling a 180 degree arc to direct light up the inside or outside of the ladder walkway.

**Ref: Unity model AG-R-P46SLC or approved equal**

One (1) spotlight and one (1) floodlight will be mounted on the handrails three rungs from the tip of the fly ladder section, one on (1) each side. The lights shall be 12 volt DC, 6 inch diameter with halogen bulbs and On/Off switches on each light. These two (2) light assemblies are exceptions to the "all LED" rule.

**Ref: Unity brand or approved equal**

### **37.11.5 LADDER TIP AC POWER REQUIREMENTS**

One (1) NEMA L5-15R 125 volt AC receptacle with environmental cover will be located on the left side ladder upright near the tip of the fly section.

## **37.12 AERIAL CONTROL - TURNTABLE CONSOLE**

An aerial control console will be located on the left side (driver's side) of the turntable, positioned to allow the operator to observe the tip of the aerial device while operating the controls.

A latching control console cover will be provided with a simplified aerial load chart installed on the inside of it. This cover shall be hinged at the rear to swing up when unlatched and be large enough to hold the aerial intercom unit.

The following features will be provided, clearly identified and suitably illuminated for ease of operation:

- a) Deadman Switch - To safeguard against accidental movement of the aerial ladder, the function controllers will remain inactive while the switch is not depressed.
- b) Ladder Function Controllers - Three (3) function controllers located on the control panel to provide elevation, extension, and rotation operational control of the aerial device. These controls will be arranged to permit the operator to regulate the speed of these operations within the safe limits as determined by the manufacturer. Provide hinged extension handle control lock on turntable control console to prevent extension of aerial into tiller cab when aerial is in cradle.
- c) Fast Idle Switch - A two-position, up/down toggle switch located on the control panel to activate the Engine Fast Idle.

MUST BE FILLED IN

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- d) Load Chart - The manufacturer's load chart will be installed within easy view from the operator's console and properly illuminated for easy reference by the operator. The load chart will indicate the manufacturer's recommended safe aerial loading and capacity weights at all angles of elevation and all extensions of the ladder.
- e) Elevation Angle Indicator - A bubble-type indicator mounted in clear view of the operator to indicate the aerial device's angle of elevation.
- f) Extension Indicator - An extension indicator will be provided on the aerial ladder.
- g) Rung Alignment Indicator - A light located on the control panel to indicate that aerial ladder rungs are properly aligned for safe climbing.
- h) Intercom Controls - (See Aerial Communication System)
- i) Hydraulic Oil Pressure Gauge - Provide and mount in clear view of aerial operator on control panel.
- J) High Temperature/Low Coolant Indicator Light for Engine - Provide a red LED jewel light
- k) Air Horn Switch - A chassis air horn switch will be provided at the console. The switch will be the momentary type and protected by a military style cover.
- l) Outrigger Warning Light - A warning light will be provided at the console to alert the operator when a "short jacked" situation exists.
- m) Emergency Power Unit (EPU) Switch - Provide a momentary switches to activate the 12 volt DC emergency hydraulic power system.

**37.13 AERIAL DEVICE CONSTRUCTION**

The aerial ladder will be constructed in accordance with the standards, materials, and methods described in **NFPA 1901, latest edition.**

**37.13.1 AERIAL DEVICE PAINTING**

See Section 3.3.2

**37.13.2 AERIAL DEVICE TESTING**

The aerial ladder will be tested and certified in accordance with NFPA 1901, latest edition.

**37.14 TRAILER BODY SPECIFICATIONS**

**37.14.1 TRAILER BODY SUPPORT STRUCTURE**

The body support structure will be an all steel trailer torque frame that stiffens the backbone of the apparatus. It shall provide a rigid and durable mounting base for the aerial and body.

Steel structural members extending across the trailer frame and running along the compartment sidewalls will support the side body aluminum compartment modules. The body will be bolted to the support structure by means of reinforcement plates, which allow additional area over which to distribute the compartment weight.

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 FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

**37.14.2 TRAILER BODY FABRICATION**

All sheet material utilized in the fabrication of the trailer body will be aluminum. Isolation materials will be utilized to prevent electrolysis wherever dissimilar metals are joined.

Each trailer wheel well will have a one-piece full width wraparound fender well with extended radius stainless steel fenderette. The wheel wells, constructed of aluminum will be bolted to the body to permit easy removal for service and maintenance.

**37.14.3 ELECTRICAL WIRING – TRAILER BODY**

All wiring throughout shall be protected by non-flammable, fire retardant (FR) convoluted plastic split loom (highest temperature rating available) in all chafe areas. Rubber grommets shall be supplied on all wiring and harnesses when passing through any bulkheads, body panels, etc.

Provide wiring with color or number coding for troubleshooting and identification. All chassis-to-body wiring shall have Deutsch/Weatherpack type connectors. The wiring connections exposed to the elements shall be crimped, soldered and covered with heat shrink tube.

A 12 volt DC electrical distribution panel board assembly will be located in a compartment on the trailer. Provide a hinged panel cover with an applicable wiring schematic sticker attached. The panel board will provide DC electric to the electrical circuits associated with the apparatus body wiring. All body electrical circuits will be protected by correctly sized thermal circuit breakers located as close as possible to the power source. All terminal strips will be provided with a weatherproof cover unless fully enclosed by other means.

**37.14.4 COMPARTMENTS**

All compartment floors will be one-piece design and designed with the lower door opening flange bent down to produce a sweep out compartment design. Each lower compartment floor will be reinforced by a formed channel (matching the body material) welded to the underside of the compartment floor to provide maximum strength. Provide as many transverse body compartments as manufacturer’s design will allow.

Compartment interiors will have a Line-X white paint finish, or approved equal.

Access panels will be provided in the rear wall of the compartments for access to hydraulic components as required.

Compartments will have louvers in the rear wall of each compartment for proper compartment ventilation.

Black tapered edge interlocking tiles will be provided to protect each compartment and shelf floor.

**Ref: Dri-Dek or approved equal**

Compartments will be located and numbered be as follows:

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FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

- “1” compartment: On tractor, ahead of tractor axle, left side.
- “2” compartment: On tractor, ahead of tractor axle, right side.
- “3” compartment: Behind outrigger, left side.
- “4” compartment: Behind outrigger, right side.
- “5” compartment: Behind compartment “3”, left side.
- “6” compartment: Behind compartment “4”, right side.
- “7” compartment: Behind compartment “5”, left side.
- “8” compartment: Behind compartment “6”, right side.
- “9” compartment: In front of the trailer wheels and behind compartment “7”, left side.
- “10” compartment: In front of the trailer wheels and behind compartment “8”, right side.
- “11” compartment: In front of the trailer wheels and behind compartment “9”, left side
- “12” compartment: In front of the trailer wheels and behind compartment “10”, right side
- “13” compartment Behind the trailer wheels, left side
- “14” compartment Behind the trailer wheels, right side
- “R” compartment: Rear of the trailer body, single drop down door of aluminum diamond plate.

Compartments “1”, “2”, “3”, “4” and “R” will be sized by the Bidder to maximize the storage space available at those locations.

Compartments “5”, “6”, “7”, “8”, “9”, “10”, “11”, “12”, “13” and “14” will be designed to be of uniform width and maximum available depth to allow shelving and door hardware to be interchangeable.

Compartments “3”, “4”, “5,” and “6” will be full height compartments.

Compartments “7”, through “14” will be no more than twenty-five inches (25") high.

One (1) aluminum diamond tread plate tool compartment with a forward hinged diamond plate lid and capable of supporting 250 lbs. will be furnished on the tractor behind the "A" compartment. The approximate dimensions are as follows: 12" wide x 12" high x 60" wide. Furnish gas shock(s) or some other type of acceptable mechanism to hold lid in up position as required. Provide and install two (2) 6 ft. ceiling hooks with brackets on the front side of tool box compartment. Further details shall be discussed at the preconstruction conference.

One open dunnage area will be provided under the main ladder area constructed of aluminum diamond tread plate. This will be sized to take maximum advantage of the available space. Line dunnage area floor with black interlocking tiles and provide drain holes for water.

**Ref: Dri-Dek or approved equal**

**37.14.5 ADJUSTABLE COMPARTMENT SHELVES**

MUST BE FILLED IN  
 FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

Twelve (12) fully adjustable shelves will be provided and installed as per Fire Department instructions. Provide a weight rating of 250 pounds per shelf.

**37.14.6 COMPARTMENT LIGHTING**

Each exterior compartment shall be equipped with two (2) LED light fixtures mounted in the vertical door frames, left and right sides. Each light will come on automatically when the respective door is opened and the master battery switch is on.

**Ref: Hansen International LED Lite Rail or approved equal**

**37.14.7 COMPARTMENT SLIDE-OUT TRAYS**

Twelve (12) slide-out trays shall be provided and installed as per Fire Department instructions. The slide-out trays will extend at least 3/4 the depth of the compartment and will have a capacity for carrying equipment weighing up to 500 lbs. in the extended position. Locks will be provided to automatically lock the tray in the stowed and fully open positions. The lock release mechanism must be operable by a firefighter wearing protective gloves.

**Ref: On Scene Solutions or approved equal**

**37.14.8 EQUIPMENT BRACKETS**

Provide and angle mount two (2) SCBA tank brackets on a slide out tray in compartment number "14". Further details shall be discussed at the preconstruction conference.

**Ref: Zico P/N: KD-UH-6-SF Walkaway Brackets or approved equal**

**37.14.9 SCBA BOTTLE COMPARTMENTS**

Four (4) SCBA bottle compartments will be provided in the space around the rear wheel openings, two (2) on each side. Each compartment will be angled down 5 degrees, fitted with a non-abrasive lining and include a spring loaded, latching door. Also provide an integral nylon strap tank tether within the compartment.

**37.14.10 HURST POWER UNIT INSTALLATION**

Provisions will be made to mount one gasoline-powered Hurst Power Unit with related equipment and hoses in one of the compartments. Unit and related equipment will be provided by the Fire Department. Further details shall be discussed at the preconstruction conference.

**37.14.11 EMERGENCY MEDICAL EQUIPMENT STORAGE PROVISIONS**

Provisions will be made to store one backboard on the trailer. Further details shall be discussed at the preconstruction conference.

**37.14.12 COMPARTMENT DOORS**

All side mounted compartment doors will be premium aluminum roll-up doors with anodized sand blast finish and not painted. Include stainless steel lift bar with clam shell independent latching (doors over 36 inches in width shall have a minimum of three lift bar mounting points). Door system shall incorporate an electrical switch in the latch striker plate protected from the elements for compartment lighting and door-ajar signal requirements.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

**Ref: Hansen International or approved equal**

A polished stainless steel door with lift-and-turn latch will be provided for each outrigger control compartment.

All compartment lock release mechanisms shall be operable by a firefighter wearing protective gloves.

**37.14.13 ALUMINUM TREAD PLATE**

All aluminum tread plate installed on the apparatus body will be "bright finish" with a minimum 1/8" thickness unless otherwise noted. For corrosion resistance, aluminum tread plate will not be installed prior to paint as described in the painting section of this specification. The top decking of all compartments must support a weight of 500 lbs. without sagging.

Aluminum tread plate will be installed in the following areas:

- a) The top of the side compartment assemblies, flanged out 60° to form a drip edge over the compartment doors.
- b) On top of the forward compartment, on the tractor, flanged out to form a drip edge over the compartment doors (3/16" aluminum).
- c) Above the portable ladder storage area.

**37.14.14 RUB RAILS**

Protective formed aluminum tread plate design moldings (rub rails) will be provided on each side of the apparatus, along the lower edges of the body and spaced away from the body surface for water drainage.

**37.14.15 STEPS**

All steps and running boards will be constructed from open Bustin-type grating.

An access ladder arrangement will be provided aft of the tractor compartment, each side, for access to the turntable. Four (4) flip down steps (2 each side) will be mounted on the side walls of compartments "1" and "2" respectively.

An access ladder arrangement will be provided aft of the tiller axle, each side, for access to the tillerman's cab. The rear running boards beneath the steps will have their rear corners cut flat to facilitate greater clearance when turning.

**37.14.16 HANDRAILS – BODY**

Provide NFPA 1901 compliant 1-1/4 inch aluminum knurled grab rails. Handrails will be located as follows:

Two (2) handrails will be provided on top of the tractor compartment for access the turntable, one (1) each side.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

Six (6) total (2) looped and (4) straight handrails will be installed at the rear of the trailer body for access to the tiller cab, and top of trailer area.

**Ref: Hansen International Grab & Hand Rail Systems or approved equal**

**37.15 ENCLOSED TILLER CAB - GENERAL**

The cab will be constructed of aluminum. The floor of the cab will be aluminum tread plate with the forward area angled upward to provide maximum footing leverage for the tillerman. The horizontal surfaces surrounding the tiller cab, including the steps, will be constructed from open Bustin grating that will allow the tillerman to have greater downward visibility while piloting the apparatus.

Two (2) 8" diameter rear view convex mirrors will be provided and mounted to tiller cab doors to aid the tillerman while maneuvering.

Provide a total of six (6) NFPA 1901 compliant 1-1/4 inch aluminum knurled grab rails. Grab rail locations to be determined by Fire Department requirements. Further details shall be discussed at the preconstruction conference.

**Ref: Hansen International Grab & Hand Rail Systems or approved equal**

**37.15.1 WINDOWS**

The front windshield of the tiller cab will be a flat, single piece of tinted automotive industry approved safety glass. A sliding window of approved safety glass will be provided in the rear of the tiller cab.

A two-speed electric windshield wiper, with washer, will be provided for the exterior surface of the front windshield.

**37.15.2 TILLER CAB DOORS**

The tiller cab will be equipped with rear-hinged, swing-out doors with full length flat safety glass side windows that can slide up and down on tracks to provide ventilation and greater visibility for steering. Provide an NFPA compliant warning system with audible and visual devices signaling that a tiller door was inadvertently left "open".

A warning label will be placed on side of tiller cab door glass warning that "**door swings out**".

**37.15.3 TILLER CAB INTERIOR**

The minimum interior height (floor to ceiling) must be at least 54 inches.

Provide an individual, fully adjustable mechanical type padded seat for the tillerman. The seat shall be covered with a high strength black fabric that is both waterproof & wear resistant. Install a red three (3) point type seat belt at this seating position.

**Ref: H.O. Bostrom Sierra Torsion 280RX with Durawear 1800 or approved equal**

A properly sized tinted plexiglass sun visor will be provided for the front windshield. The visor will be double hinged for a wider range of sun screening.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

One LED dome light, with integral on/off switch will be provided on the tiller cab ceiling along with an LED map light to be mounted over the right shoulder area of the tiller operator, with on/off switch on the light.

A safety system will be provided between the tractor cab and the tiller cab to prevent movement of the apparatus before the tillerman is in position. A momentary contact "safety start" button, which must be depressed before the transmission can be shifted from "neutral" to "drive" or "reverse", will be located on the tiller cab dash. A momentary override key type switch for this system will be installed under the tractor cab dash.

A light & buzzer signaling system will be provided between the tractor and tiller cabs. Four (4) weatherproof buttons will be provided, one (1) in the tractor cab, one (1) in the tiller cab on the floor and one (1) on each side of the trailer adjacent to the tiller cab access step arrangement. The wiring side of the switches towards the ladder storage compartment shall be provided with a switch guard to prevent damage to wiring. The buttons will be labeled: 1-Stop, 2-Go, 3-Backup. Two (2) one inch red jewel type LED warning lights will be installed in conjunction with the buzzer system, one (1) at the tiller dash and one (1) on the tractor cab dash. The tractor cab buzzer will be separate and distinct in tone and volume from any other tractor cab warning buzzer.

An intercom will also be provided between the tiller and the tractor cab. The master control will be located near the officer, with a "hands off" speaker/microphone located in the tiller cab. Exact component locations to be determined at vehicle concept and construction. Installation shall include shielded communication cable and a filter to prevent noise & interference.

**Ref: Atkinson Dynamics or approved equal**

An audible and visual warning system will be provided to warn both drivers when the apparatus approaches the jackknife position. Incorporate LED pilot lights and label all components as necessary.

Left and right, green, 1" jewel LED turn signal indicator lights will be mounted on the tiller cab dash to alert the tillerman of the tractor driver's intent. Appropriate labeling of these lights shall be provided.

Manufacturer's standard grab handle(s) will be provided inside the tiller cab to assist in entering and exiting the cab.

An 18 inch or manufacturer's standard diameter steering wheel with tilt and telescoping column will be provided in the tiller cab.

MUST BE FILLED IN  
FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

Provide an air brake system electronic pressure gauge (transducer type) on the tiller cab dash if available. Further details shall be discussed at the preconstruction conference.

Drain holes will be provided in each corner of the tiller cab floor.

**37.15.4 TILLER CAB HEATER/DEFROSTER**

A diesel powered 7500 BTU heater/defroster system will be provided for the tiller cab. Two (2) multidirectional louvers will be installed on the tiller cab dash to direct heated air onto the windshield and into the tiller cab. The heater will be thermostatically controlled and have a two-speed blower with controls located on the dashboard. Provide a one (1) gallon fuel tank; locate on the top deck near the tiller cab and label "Diesel Fuel Only".

**Ref: Espar Airtronic D2 or approved equal**

Two (2) 6" all metal windshield defogger type fans will be installed to assist with defrosting the windshield. The fans will be installed so as not to interfere with visibility.

**37.15.5 TILLERMAN'S DRIVING LIGHTS**

Two (2) 6" recessed body mounted LED driving lights will be provided forward of the trailer wheels, one (1) each side, as a driving aid for the tillerman. These lights shall be controlled by a properly labeled switch on the tillerman's cab dash.

**37.16 LADDER PIPE PROVISIONS**

A fixed mounting bracket, having two rungs of the same spacing as the aerial, will be mounted on the body in close proximity to the tip of the bedded ladder.

A low profile aluminum diamond tread plate box, capable of holding 100' of 3-1/2" double-jacketed hose, with aluminum or fiberglass slotted flooring will be mounted on the right side of the walkway next to the aerial ladder. A red vinyl cover with retaining straps will be provided to cover the hose box.

A complete 2-1/2 inch inlet ladder pipe assembly with tips & rope lanyard will be provided by the contractor. The tip sizes will be 1-1/4", 1-1/2" and 1-3/4" and be mounted near the ladder pipe.

**Ref: Akron Model 1496 or approved equal**

**37.17 GROUND LADDER STORAGE**

Ground ladders will be stored in the center of the apparatus body over the center of the tiller frame area except as noted. The ladders will be kept in the horizontal position on fiberglass angle slides with access from the rear of the apparatus. In addition to safety chains to prevent ladder movement also install two hinged doors with latches.

The 28' two-section extension ladder will be hung on the right side of the body above the compartments along with the 12' roof ladder. The 8' attic ladder will be mounted on the top deck of the left side of the body. The 16 ft. ground ladders will be mounted on the left side

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FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

above the compartments. Locate the ladders as close to the tops of the compartments as practicable to enhance accessibility and tillerman visibility.

The contractor will supply all ground ladders.

Ground ladders will be **Duo-Safety** (aluminum) as follows:

<u>Amount</u>	<u>Model #</u>	<u>Type</u>	<u>Length</u>	<u>Width</u>	<u>Banking Height</u>	<u>Weight</u>
One (1)	750-A	Wall	8'	19"	N/A	14 pounds
One (1)	585A	Folding	12'	12.12"	1-3/4" x 4-1/4"	20 pounds
One (1)	575C	Roof	12'	19-3/4"	4-1/2"	43 pounds
Two (2)	550C	Wall	16'	22-1/2"	4-1/2"	48 pounds
One (1)	550C	Wall	20'	22-1/2"	4-1/2"	59 pounds
One (1)	500C	2-section	28'	24"	8"	112 pounds
Two (2)	500C	2-section	35'	24"	8"	153 pounds
One (1)	500C	2-section	45' or 50'	26"	9"	279 pounds
		With poles				

NOTE: All wall ladders will have prong feet on both ends.

One (1) **Wing Enterprises, Little Giant 10102 Model 17 Type 1A** aluminum ladder system will be provided & installed on the top of compartments "1" & "2" behind the tractor cab. Further details shall be discussed at the preconstruction conference regarding the mounting location.

**37.18 PIKE POLE STORAGE**

Pike poles will be provided by the contractor and stored under the ground ladder storage area and in the trailer frame area with access from the rear of the apparatus. Pike poles will be contained in individual, properly labeled 2 1/2" diameter PVC tubes.

Provide the following pike poles with fiberglass handles:

- Two (2): six feet in length
- Two (2): eight feet in length
- Two (2): twelve feet in length
- Two (2): twenty feet in length
- Two (2): six feet in length (EK Hooks)

Storage locations:

- 2 – 6 ft. pike poles will be mounted rear of compartments 1&2.
- 8 – Remaining hooks and poles to be stored underground ladder storage area.

**Ref: NUPLA I-Beam style SPD or approved equal**

MUST BE FILLED IN  
 FIRM (VENDORS) NAME \_\_\_\_\_ BID NUMBER \_\_\_\_\_

***SPECIFICATION***

**TRUCKS: AUTOMOTIVE  
INTERNAL COMBUSTION ENGINE**



**1. SCOPE & CLASSIFICATION:**

This specification covers the general requirements for Trucks in various body styles and weight classifications. The Trucks shall be powered by internal combustion engines. They shall be constructed, assembled and equipped to perform properly under the operating conditions for which they are intended. Each unit shall be unused in all component parts and shall be the latest model in current production and include all accessories normally furnished as standard as shown in current literature. These specifications shall be construed as minimum and where the manufacturer's fleet standard exceeds these, vehicles shall be so furnished; where optional equipment is specified, the description thereof shall be the governing minimum. They shall be registered with the Pennsylvania Department of Revenue for the License Class and Axle Weights indicated in the purchase description.

This specification shall be used in conjunction with appropriate detailed chassis purchase description for the specific type of truck called for in the Invitation to Bid (See Index - Last Page).

(NOTE): - Reference to GVW in these specifications is a guide only; final GVW rating shall be determined by the D.O.T. Rules and Regulations in regard to axles, springs, suspension, brakes and tires as required in the T-Form Specifications.

**2. APPLICABLE SPECIFICATIONS:**

The following specifications, of the , latest issue in effect on the date of the Invitation to Bid, shall form a part of this specification.

- Department of Transportation - Federal & State Motor Vehicle Safety Standards.
- Society of Automotive Engineers, Inc. - SAE Standards & Recommended Practices.

**TRUCKS, AUTOMOTIVE, INTERNAL COMBUSTION  
ENGINE - SPECIFICATION 41-V-20M:86**

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- OSHA Rules & Regulations - Shall apply when applicable.
- Federal Department of Health, Education & Welfare - Air Pollution Control for New Motor vehicles.
- Commonwealth of Pennsylvania - Traffic & Motor Vehicle Rules and Regulations.
- Manufacturer Line Set Ticket - Shall be forwarded to the Director of Automotive Services upon delivery of the chassis to the City of Philadelphia, or if Pilot Model Inspection, at the factory.

(NOTE) - Any intent of this specification shall be superseded by the provisions of the above.

3. **CAB & CHASSIS:**

- 3.1 Cab - Shall be conventional, three-man adjustable seat with three seat belts.
- 3.2 Chassis - The chassis shall be sturdily constructed and shall be of strength capable of withstanding all imposed loads when operating at the gross vehicle weight without excessive strain on any members or parts.

3.3 Chassis Body & Cab Colors:

3.3.1 City of Philadelphia, Paint Colors & Lettering by Department as follows:

<u>DEPARTMENT</u>	<u>COLOR</u>	<u>DUPONT REF. #</u>	<u>LETTERING COLOR</u>
Fair. Pk.	GREEN	72001	IVORY
Fire Dept.	RED	55141	GOLD LEAF
Police (Body)	BLUE	5351A	-----
Police (Roof)	WHITE	92635	-----
Sheriff (Body)	BLUE	5351A	-----

Sheriff (Roof)	WHITE	92635	-----
Water (Up to 21,000 lbs. GVW)	WHITE	508	BLUE
Water (26,000 Lbs. GVW & Up)	SAFETY YELLOW	75306	BLUE
Recreation (Stadium)	BLUE	78387	WHITE
All Other Depts. Except Library	SAFETY YELLOW	75306	BLUE

3.3.2 - All lettering listed above shall be three inches (3") high on front doors, both sides, as follows.

**PHILADELPHIA**

**(NAME OF DEPARTMENT)**

**(6-DIGIT VEHICLE NUMBER)**

NOTE) Stenciling of Lettering is NOT acceptable.

3.3.3 Optional Lettering - Streets Department: All vehicles shall have 1-1/2" size numbers placed on the left side of the front bumper and three inch (3") size numbers on the rear of the body as follows:

Department # - Vehicle # - Division

This lettering is in addition to the lettering specified in 3.3.2 above and lettering instructions may be obtained from the Automotive Services Division of the Department of Public Property.

3.3.4 Official Colors & Lettering of ALL Free Library Vehicles:

A) The vehicle shall be painted as follows:

1. Top Half = White
2. Bottom Half = Dark Blue
3. Dividing Stripe (3" Wide) between top and bottom halves located approx. 3" above blue bottom half = Bright Green

B) The vehicle shall be lettered as follows:

1. "THE FREE LIBRARY OF PHILADELPHIA" in large bold letters.
2. "READ" in large bold letters with a book-and-bell design (using white, blue and green) in the center of the letter "R".
3. Dark Blue lettering on white areas; white lettering on dark blue areas.

C. Paint Color Reference Numbers

<u>COLOR</u>	<u>LIBRARY PANTONE</u>	<u>TRADE NAME</u>	<u>DUPONT NO.</u>
WHITE	-----	WHITE	92635
DARK BLUE	287	DARK BLUE	24160
BRIGHT GREEN	368	BIG BAD GREEN	5081D

(NOTE): Instructions for the above Library Lettering may be obtained from the Automotive Services Division of the Department of Public Property.

4. **BODY:**

Body provided shall be as required in Bid Specs.

5. **CAB & BODY EQUIPMENT:**

5.1 Equipment & Accessories - The following equipment, and/or accessories shall be provided.

**Cab & Body:**

5.1.1 Fresh Air Heater and Defroster with separate control for temperature and fan.

5.1.2 All gauges shall be provided for ammeter, oil pressure, water temperature and fuel, 16,000 GVW & up.

5.1.3 Dual windshield wipers, power-operated, two-speed or variable.

5.1.4 Dual sun visors.

5.1.5 Dome Light.

5.1.6 Directional Signals - Class "A" Type, as per Pennsylvania DOT Motor Vehicle Regulations - with traffic hazard switch for flashing all turn signal lights simultaneously.

5.1.7 Combination arm rest/inside grab handle on cab doors adjacent to driver and passenger seats.

5.1.8 Safety Seat Belts - Belts shall comply with DOT Rules and Regulations.

5.1.9 **Mirrors:**

Inside Adjustable, up to 12,000 GVW  
Outside, Dual Right/Left W/C to 12,000 GVW  
Outside, Dual Right/Left W/C, 6" x 16", for  
16,000 lbs. GVW and up.

5.1.10 **Undercoating** - Shall be applied to all exposed sheet metal under chassis and body including fender wells unless constructed of plastic.

(NOTE): Compacting-Type Trucks - are to be undercoated on the cab and chassis but NOT under the compactor Body.

5.1.11 **Cab Outside Grabhandles** - Shall be provided on trucks 16,000 lbs. GVW and up.

6. **FRAME:**

The Chassis Frame shall be constructed of pressed steel or equal; and shall be provided with adequate cross-members, exclusive of engine supports, so designed and constructed as to support adequately the gross weight of the body and load, the power plant, and all other necessary equipment under the operating conditions for which the truck is intended.

6.1 Frame shall be specified in terms of minimum acceptable resisting moment, which is the product of the section modulus of the frame section and the unit stress at the minimum yield point.

$$\text{MOMENT (M)} = \text{SECTION MODULUS (S)} \times \text{UNIT STRESS (F)}$$

In the case of built-up frame sections, the combined section modulus shall be considered as the sum of the individual section moduli.

6.2 Frame Attachments - Front & Rear Towing hooks or Eyes shall be provided, 16,000 lbs. GVW and up. They shall be fastened to the frame in such a manner as to develop maximum tension and minimum bending in the frame members.

6.3 Factory Frame Reinforcement - Shall be provided for 16,000 lbs. and up GVW, GCW and Chassis when specified in bid specifications.

Frame reinforcement is required on all Dump Trucks and Trucks with Cranes, Hydraulic Buckets and other Attachments inducing high twisting and weight stresses.

6.4 Frame Strength - The vehicle frame as supplied by the manufacturer shall meet all requirements as established and set forth by the Federal Government and the Commonwealth of Pennsylvania, Department of Transportation, to meet the GVW of the vehicle bid and shall have the prescribed Certification Sticker affixed to said vehicle. In order to meet the aforementioned standards, the bidder may provide a frame that is either structurally reinforced ("J" type, "L" type, "C" type, etc.) or is constructed of a "high tensile" rating steel or specially heat treated steel (minimum rating of 110, 000 PSI).

7. **SUSPENSION AXLES** - Rear Axles shall be capable of operating under all conditions with multi-purpose gear lubricants.

7.1 Springs - Springs shall match rating of front and rear axles capacity in pounds.

7.2 Shock Absorbers - Shock Absorbers shall be provided front and rear for all 7,500 lb. and 12,000 lb. capacity chassis.

7.3 Tire Chain Clearance - On Drive Wheels, single and dual, wheel chain clearance shall be provided.

7.4 Tandem Axle Suspension - Shall be walking beam type, with at least 50" axle spacing, rubber bushings and a cast steel saddle with steel springs to match axle capacity.

7.5 Axle Capacity shall be provided at least as follows:

<u>GVW REF.</u>	<u>FRONT AXLE</u>	<u>REAR AXLE</u>
7,500 LBS.	3,300 LBS	5,000 LBS.
11,000 LBS	4,000 LBS.	8,000 LBS.
16,000 LBS.	5,000 LBS.	15,000 LBS.
21,000 LBS.	6,000 LBS.	17,000 LBS.
26,000 LBS.	9,000 LBS	19,000 LBS.
30,000 LBS.	12,000 LBS.	23,000 LBS.
48,000 LBS.	16,000 LBS.	38,000 LBS.

(NOTE) - The above listed front axle capacities generally are not applicable to tractor specifications and they will be specified in the bid documents.

7.6 All single driving axles shall be equipped with limited slip differential, positive drive. Tandem axles shall be provided with inter-axle differential lock, air operated; dash switch with a red warning light.

8. **BRAKES:**

Service Brakes shall be provided on all wheels as follows:

8.1 7,500 lbs. to 11,000 lbs. GVW - Power Assisted Brakes

8.2 16,000 lbs. to 25,000 lbs. GVW - Vacuum-Boosted Hydraulic Brakes with a reserve tank, or power steering pump assist, and dash gauge.

- 8.3 26,000 lbs. GVW and UP - Full Air Brakes with dual reserve tanks, air pressure gauge on dash, buzzer, 12 cu. ft. (min.) water cooled air compressor, fail-safe rear brakes (Berg or Maxi type) released by air pressure, automatic reservoir drain valves and dash mounted controls.

(NOTE) - "S" Type Cam Brakes with automatic slack adjuster shall be provided in lieu of "wedge"-type brakes.

9. **ENGINE:**

Engine as specified and provided shall be in accordance with all the applicable provisions of Section #2, and it shall be of at least the listed minimum displacement, in accordance with the truck GVW, as follows:

9.1 Gasoline Powered Engines, if specified -

7,500 lbs. GVW = 345 cu. in.  
11,000 lbs. GVW = 345 cu. in.  
16,000 lbs. GVW = 360 cu. in.  
21,000 lbs. GVW = 360 cu. in.  
26,000 lbs. GVW = 390 cu. in.  
30,000 lbs. GVW = 425 cu. in.  
48,000 lbs. GVW = 425 cu. in.

(NOTE) - Trucks with GVW under 7,500 lbs. will use the 7,500 lbs. GVW rating as a guide.

9.2 Diesel Powered Engines, if specified.

16,000 lbs. GVW = 500 cu. in./4 cycle  
21,000 lbs. GVW = 500 cu. in./4 cycle  
26,000 lbs. GVW = 500 cu. in./4 cycle  
30,000 lbs. GVW = 550 cu. in./2 cycle  
30,000 lbs. GVW = 670 cu. in./4 cycle  
48,000 lbs. GVW = 550 cu. in./2 cycle  
48,000 lbs. GVW = 670 cu. in./4 cycle

(NOTE) - A key-type electrical solenoid or a manual type shut-down system shall be provided on all diesel engines.

10. **ENGINE EQUIPMENT:**

All engines shall be provided with the following equipment:

- 10.1 Replaceable-type lube oil filter, engine-mounted.
- 10.2 Electronic-type ignition system, if gasoline engine.
- 10.3 Non-leaded Fuel System, if gasoline engine; all engines to have in-line replaceable fuel filters.
- 10.4 Engine Governor shall be provided on all trucks with a GVW of 16,000 lbs. or over; top governed speed limit allowable through transmission and rear axle ratios is 55 MPH.
- 10.5 Manufacturer's rated heavy-duty dry-type intake air cleaner.
- 10.6 All engines shall be provided with an automatic shutdown system for high water temperature and low oil pressure when specified in the Invitation to Bid.
- 10.7 Diesel engines are to be provided with cold weather starting provisions.

11. **TRANSMISSION:**

- 11.1 All trucks will be provided with fully automatic transmissions having the minimum number of forward speeds, in accordance with the truck GVW, as follows:

Up to 7,500 lbs.	3 speeds
11,000 lbs.	3 speeds
16,000 lbs.	4 speeds
21,000 lbs.	4 speeds
26,000 lbs.	4 speeds
30,000 lbs.	5 speeds
48,000 lbs.	5 speeds

(NOTE) - Transmissions provided on Trucks with GVW's of 26,000 lbs. or over shall have factory installed external type oil filters and an oil temperature gauge mounted on the dash.

12. **STEERING:**

All trucks shall be provided with Power Steering

13. **ENGINE COOLING SYSTEM:**

13.1 All engines shall be provided with increased cooling including a sealed radiator coolant recovery system with a surge tank.

13.2 All coolant systems shall be protected by permanent-type anti-freeze down to temperature of at least minus 30oF.

14. **ELECTRICAL EQUIPMENT:**

The chassis shall be provided with 12-volt electric starting, lighting and ignition system with two (2) keys. Alternator shall be heavy-duty type, at least 60 amp output, with 30 amp output at idle. All electrical systems in the vehicle shall be protected by circuit breakers or fuses. Battery shall be a 12-volt "Maintenance Free" type.

15. **TIRES:**

15.1 Tires of the same size and manufacturer shall be provided on the front and rear unless specified otherwise in the Invitation to Bid.

15.2 Front tires shall be "regular" tread type.

15.3 Rear driving axles shall be provided with "All Traction" type tires.

15.4 All-Wheel Drive Type Trucks, (including "Jeeps"), shall be provided with "all traction" type tires on all front and rear driving axles.

(NOTE) - "Military" Grade tires or Wide-Open Tread type tires are not acceptable for "All Traction" Type tires.

Police 4WD type vehicles shall be provided with blackwall "all traction" type steel belted radial tires.

15.5 A mounted "regular" tread type tire ("all traction" type for 4WD type vehicles) and rim shall be provided as a spare unit.

15.6 Trucks shall be provided with the number of tires sized and rated, in accordance with the trucks GVW, as follows:

<u>LBS</u> <u>GVW</u>	<u>NO OF</u> <u>TIRES</u>	<u>RIM</u> <u>SIZE</u>	<u>TIRE SIZE</u>	<u>TIRE PLY</u>
7,000	4	--	8.75 X 16.5	8
11,000	6	--	8.00 X 19.5	8
16,000	6	7.00	9.00 X 20	10
21,000	6	7.00	9.00 X 20	10
26,000	6	7.50V	10.00 X 20	12
30,000	6	7.50V	10.00 X 20	14
48,000	10	8.00V	10.00 X 20	14

(NOTE) The above ratings are to be considered as the minimum acceptable.

15.7 Cast spoke wheels are to be provided on all trucks with GVW ratings of 16,000 lbs. and above.

16. **FUEL TANK:**

All Trucks will be provided with the listed minimum size fuel tank, in accordance with their rated GVW, as follows:

<u>RATED GVW</u>	<u>TANK SIZE &amp; TYPE</u>
7,500 LBS.	20 GALLON - REGULAR TANK
11,000 LBS.	20 GALLON - REGULAR TANK
16,000 LBS.	30 GALLON - REGULAR TANK
21,000 LBS.	50 GALLON - SAFETY STEP TANK
26,000 LBS.	50 GALLON - SAFETY STEP TANK
30,000 LBS.	50 GALLON - SAFETY STEP TANK
48,000 LBS.	DUAL 60 GALLON - SAFETY STEP TANK

17. **SAFETY EQUIPMENT:**

17.1 All trucks shall be provided with all safety equipment as required by DOT/ICC for vehicles in interstate operations. This equipment shall include, but not be limited to:

Fire Extinguisher - Dry Charge Type, Flags, Flares, Reflectors, etc.

Each Kit shall be mounted in a convenient location inside the cab.

17.2 Backup warning buzzer/alarm shall be provided on trucks with a GVW of 16,000 lbs. or above.

17.3 A Manual Engine Shut-Down System shall be provided on all diesel engines.

18. **WARRANTY:**

Warranty - In addition to any policy guarantees usually extended to the general public, the contractor shall guarantee the vehicle and body, and parts thereof against defective material, workmanship, and/or faulty design for a period of one (1) year from date of acceptance delivery to the Department of Public Property. The vendor shall replace all defective assemblies or parts without cost to the City (including labor), f.o.b. manufacturer's nearest dealer or branch, or to original destination whichever is designated by the using agency. The contractor shall make immediate replacement from his plant or through his dealer or branch.

Warranty Rate - Rate shall be \$25.00 per hour, plus 15% parts handling charge, when repairs are performed at City garages.

19. **PRE-PRODUCTION INSPECTION:**  
Provide transportation and costs for two (2) persons to inspect pilot model unit at factory. All preparations; travel, lodging, meals and other arrangements will be made by the bidder at his own expense.
20. **QUESTIONNAIRE:**  
The questionnaire included with the Invitation to Bid shall be completely filled out and submitted by bidder with his bid.
21. **QUESTIONS REGARDING BID:**  
All questions regarding Bid Specifications should be directed to the Director of Automotive Services Division, Room 1140, M.S.B. or call extension (215) 686-4481.
22. **ILLUSTRATIONS & DRAWINGS:**  
The bidder shall furnish with his bid, two (2) sets of illustrations and complete data sheets to assist the purchasing and using agencies in determining whether the vehicle offered is adequate to perform the work specified and if it meets the Bid requirements/description.
23. **REPAIR PARTS & SERVICE:**  
As the continuous operation of the vehicle contemplated by this specification is of utmost importance, contractor shall be able to furnish, upon request, sources of maintenance and repair, parts and supplies for a period of ten years.

24. **CERTIFICATION OF COMPLIANCE WITH SPECIFICATIONS:**

The bidder shall certify on the form furnished with the Invitation and Bid that the Truck, component units, and parts shall be suitable for the work to be performed and will be constructed to definite standard dimensions, with proper clearance and fits; that previously published or set ratings shall not arbitrarily be raised without prior approval of the manufacturer of the actual unit and further, that the truck offered shall comply in every respect with the terms of this specification. In the event that the truck offered does not comply with this specification, the bidder shall state definitely, referring to the proper paragraph of this specification, where the Truck he proposes to furnish does not comply. Where no statement is received, the successful bidder shall be required to meet every requirement of the specification.

25. **REQUIREMENTS:**

General - Though they shall not be specifically enumerated herein, all parts necessary to provide a complete and efficient truck shall be furnished. All parts shall conform to current engineering practices of the industry relative to design, strength, quality of material and workmanship. The City reserves the right, at its option alone, to accept trucks with minor deviations from this specification.

26. **MATERIALS:**

The Truck and all parts thereof shall be made of materials which are suitable for the intended service and shall be produced by current standard manufacturing processes. The materials shall be free from characteristics or defects which affect the appearance or which shall affect the proper functioning of the finished product.

27. **GROSS VEHICLE WEIGHT AND DRY CHASSIS WEIGHT RATINGS:**  
These shall be as specified in the Invitation to Bid. The gross vehicle weight rating shall include the weight of the complete chassis and cab with all attachments, accessories, and equipment required by this specification, and the body with its rated load, full complement of fuel, lubricants, coolant and the operator.
28. **FINISH:**  
All surfaces and parts not having a chrome-plated or polished metal surface shall be department color-coated as per paragraph 3.3.1 over a rust-inhibiting primer coat. All concealed metal surfaces are to be protected with a rust-inhibiting primer coat.
29. **WORKMANSHIP:**  
Workmanship shall conform to current best manufacturing practices followed from Trucks of similar type and capacity. Component parts and units shall be manufactured to definite standards dimensions, with proper fits and clearance.
- 30 **SHIPMENT & DELIVERY:**
- 30.1 Delivery Information - Final delivery shall be made between the hours of 8:00 AM and 4:00 PM, Monday through Friday, except City Holidays. Each vehicle shall be accompanied by a Delivery Slip which will contain the City's Bid Number, Purchase Order Number, Item Number on the Purchase Order, and Serial Number of the Vehicle. Delivery shall be made to:
- Department of Public Property  
Automotive Services Division  
6000 N. Broad St.  
Philadelphia, PA
- Phone (215) 548-0481
- (NOTE) - Unless a different location is specified in the Invitation to Bid.

Notification of any changes in the delivery location will be made to the successful bidder at least one week prior to the scheduled delivery date.

- 30.2 Where mounted equipment, such as bodies and accessories are to be furnished under separate contracts, the chassis vendor shall deliver the vehicle to the mounted equipment vendor location designated by the City. He shall secure a dated receipt for delivery with a copy for the City.

Upon completion of the work for which he is responsible, the mounted equipment vendor shall deliver the complete unit to the City of Philadelphia. It is the responsibility, however, of the chassis vendor to obtain the State Inspection Stickers on each vehicle, and therefore, he shall make such arrangements with the mounted equipment vendor as may be mutually agreeable which shall enable the body vendor to get the necessary State Inspection before final delivery.

The Prime Bidder retains the ultimate responsibility of providing a completely assembled and acceptable vehicle in all respects as per this specification and the Invitation to Bid.

30.3 **DELIVERY CONDITIONS:**

- 30.3.1 Vehicles, regardless of delivery point, shall be ready for use including all lubricants, coolant and operating fluids as required. Minimum ten (10) gallons of fuel shall be provided. Battery fully charged, tires properly inflated.
- 30.3.2 Unloading and any labor, equipment or material required for it, shall be the responsibility of the bidder. The City will designate the unloading area of the delivery site to be used.

31. **INSPECTION:**

- 31.1 Pennsylvania State Inspection - Each vehicle shall pass the Vehicle Code Examination of the Department of Transportation, Commonwealth of Pennsylvania; when delivered, chassis vendor shall have attached current State Inspection Stickers in the proper location.
- 31.2 Exhaust Emissions Inspection - All vehicles with GVW's subject to the provisions of the Pennsylvania Department of Transportation exhaust emission regulations must meet said requirements and have the appropriate sticker affixed to the windshield, along with the State Vehicle Inspection Sticker, when the vehicle is delivered to the City.
- 31.3 City Inspection - City Inspection of delivered vehicles will be conducted at the specified delivery point. It will be conditioned upon the satisfaction of all of the requirements of this specification and the Invitation to Bid.
- 31.4 Director of Automotive Services, Department of Public Property, shall be notified when Pilot or First Production Model is available for inspection at Manufacturer's Plant.

32. **CERTIFICATES & MANUALS TO BE FURNISHED BY VENDOR:**

- 32.1 Operator's Handbook with each vehicle.
- 32.2 Provide the necessary forms (completed) and documents for the City to take Title to the vehicle in accordance with the Pennsylvania Motor Vehicle Code.

- 32.3 Vendor shall supply the Director of Automotive Services, Public Property, not less than five (5) copies each (for chassis, body and accessories furnished) of Shop Manuals, Parts Catalogues, Flat Rate Manuals, and Price Lists, including updated supplements for a period of one year for each type of vehicle. The City shall pay the bidder his costs from the manufacturer for any additional copies required by the operating department.
- 32.4 Financial Responsibility Statement - Successful bidder is to provide with each delivered vehicle, a Pennsylvania "Financial Responsibility Statement" card (MV-45) completely filled out as per instructions thereon for that vehicle.
33. **SIGNS:**  
Signs - Decals or other devices showing Dealer's Name and/or Address shall not be permitted on the outside of the vehicle.
34. **SCHOOLS:**  
Each bidder shall arrange with the Director of Automotive Services Division, Department of Public Property, a formal school training program for the current year vehicles and equipment bid upon. These schools shall be available for all City Department's automotive maintenance employees, such as Foremen, Inspectors and Maintenance Mechanics. The Department of Public Property shall make available classroom facilities at Automotive Shop II, Front Street & Hunting Park Avenue, for the required training.

**PURCHASE DESCRIPTIONS/PENNA. REGISTRATION CLASSES FOR TRUCKS AND CHASSIS ACCORDING TO THEIR G.V.W.**

It is the intention of this Purchase Description Section to indicate the Pennsylvania Registration Class for the various size trucks generally specified for City services.

Reference: Pa. Manual on Automotive Titles and License,  
13<sup>th</sup> Edition

T-1 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF: 7,001-9,000 LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class #3.

T-2 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF: 9,001-11,000 \ LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class #4.

T-3 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF: 14,001-17,000 LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class 6.

T-4 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF. 17,001-21,000  
LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class 7.

T-5 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF. 21,000-26,000  
LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class 8.

T-6 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF. 26,001-30,000  
LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class 9.

T-7 **PURCHASE DESCRIPTION: TRUCK, CHASSIS, REF. 44,001-48,000  
LBS. GVW**

1. **Classification:**

- 1.1 It is the intention of this Purchase Description to describe a Truck Chassis including all the standard options and as required in 41-V-20 (latest issue). The equipment bid shall qualify for Truck License Plates of the Commonwealth of Pennsylvania as Minimum Class 14.

**BODIES**

The Bodies as required in Bid items shall fit the chassis and be properly and securely mounted thereon. The bodies shall harmonize perfectly with the chassis, to be correctly proportioned, properly balanced (load distribution), compact and satisfactory in appearance. The materials used in the construction of the bodies shall be of the highest quality. All vehicles with Bodies shall be equipped with mud flaps/stone deflectors as required by DOT and Commonwealth of Pennsylvania. Approximately three (3") inches shall be provided from back of cab to front of body for best load distribution factor.

The following Body Classifications shall be provided as specified in the Invitation to Bid:

**BODY:**

The truck body, including equipment and body operating devices, shall be completely installed as specified in the Invitation to Bid.

**BODY STYLE:**

In addition to the cab normally provided with the truck chassis, a body described as follows will be provided according to the body class specified in the Invitation to Bid.

**BUMPERS:**

**Bumpers/Liftgates** - Manufacturer's standard type front and rear bumpers shall be provided on all vehicles as per D.O.T. regulations except as specified in the bid specifications. If a lift gate is specified on a vehicle that normally has a rear bumper, the rear bumper is still a requirement as an extension of the chassis or incorporated into the liftgate if either is compatible with the lift gate provided.

**Class A-1; Crew Cab:**

All steel construction of integral design with four doors; 6-man seating, adjustable front seat, 6 seat belts.

**Class A-2; Pickup:**

All steel construction at least 96" long x 50" wide beyond wheelhousing; full width rear tailgate, safety chain, stake pockets and rear bumper.

**Class A-3; Suburban:**

All steel construction, full width rear doors, windows all around, at least 9-passenger seating with removable intermediate and rear axle seats, one seat belt per passenger and a rear bumper.

**Class A-4; Stake/Platform:**

Body shall be wood or steel construction with removable slatted stake sections on sides and ends. Front-end shall permit adequate rear vision from cab windows. All sections shall interlock. Body shall be securely mounted to frame with full length oak stringers under body.

**Class A-4-1(A)** Stake & Platform as per A-4, above, at least 12 feet long, 82" wide with 40" high sections.

**Class A-4-2(B)** Stake & Platform as per A-4, above, at least 14 feet long, 82" wide with 40" high sections.

**Class A-5; Step Van:**

Shall consist of all-metal construction integral with chassis manufacturer's flat-back" type step van mounted on forward control type chassis, with double full-width rear doors, driver adjustable stand-up seat, passenger seat, and a rear safety step bumper.

**Class A-5-1(A)** Step Van - As per A-5, above, at least 10 feet long, 78" wide, 68" high.

**Class A-5-2(B)** Step Van - As per A-5, above, at least 12 feet long, 78" wide, 68" high.

**DUMP BODIES AND HOISTS**

**CLASSIFICATION:**

Dump Bodies shall be constructed of high strength corrosion resistant steel. Hoists for Dump Trucks shall be underbody hydraulic power type hoists with controls in cab. They shall provide a dumping angle of not less than 50 degrees and shall be of such a type that will positively control the position of body throughout the entire dumping angle. The hoisting shall be stopped automatically when the body reaches the maximum dumping angle (at least 50 degrees) and retain its position until released. The hoist cylinder shall be so designed as to allow for disassembly and servicing with ordinary hand tools. The pump shall be of the manifold type and oil tracts shall be cored or of seamless steel tubing or high pressure composition hose that shall withstand a minimum burst pressure of 6,000 lbs. per sq. inch. The pump shall be so designed as to compensate for end thrust and the shafts shall rotate on anti-friction bearings. The pump shaft shall be of the automatic self-adjusting seal type, eliminating the necessity for packing nuts and glands.

- Provide red warning light(s) on dash to alert operator that the PTO is engaged.

- Provide rear window protector screen.
- Provide rear spring-loaded pintle hook, "V" reinforced to main frame rails, (clear dump body at full dumping position).
- Approximately three (3") inches shall be provided between cab and dump body for good load distribution.
- A sliding universal joint assembly shall be provided at the pump end of the drive shaft. The body hinges shall operate on hinge pins under double shear or if single shear, a through hinge shaft shall be provided with a center support to prevent deflection. The power take-off shall be anti-friction bearing type. Hoist, power take-off and control parts shall be of sufficient capacity to amply take care of power required to operate hoist with 100% overload in body with relief valve.
- Full length longitudinal hardwood sills shall be provided with hoist frame mechanism to clear dump body for chain clearance at full load (full spring deflection shall be allowed). Hoist mechanism shall be securely mounted. The tailgate shall be double-acting with offset top hinges, tailgate and spreader chains.

**TYPE DU-1** 8 Ft. length medium duty Dump Body, 3 cubic yard capacity, with at least 16" sides, 84" width, constructed of not less than #10 USS Gauge Steel. Sides shall be reinforced with vertical "V" braces, not less than (2) two on each side. Ends shall be at least 6" higher than sides. Cab shield shall be provided, full width of body, projected at least 18" forward - #10 USS Gauge Steel. Class - #30 Hoist shall be provided with cab PTO controls to include detailed specifications as listed in Classification #1. Flooring shall be ten (10) USS Gauge Steel, minimum.

**TYPE DU-2**

10 Ft. length heavy-duty Dump Body, 5 cubic yard capacity, with at least 24" sides, 84" width, constructed of not less than #10 USS Gauge Steel. Sides shall be reinforced with vertical "V" braces, not less than (3) three on each side. Ends shall be at least 6" higher than sides. Cab shield shall be provided, full width of body, projected at least 18" forward - #10 USS Gauge Steel. Class - #50 Hoist shall be provided, power-up and down, with cab PTO controls to include detailed specifications as listed in Classification #1. Flooring shall be ten #8 USS Gauge Steel, minimum

**TYPE DU-3**

12 Ft. length heavy-duty Dump Body, 10 cubic yard capacity, with at least 39" sides, 84" width, constructed of not less than #8 USS Gauge Steel. Sides shall be reinforced box section design with at least four (4) vertical bars on each side. Ends at least 6" higher than sides. Cab shield shall be provided, full width of body, full cover shield, #10 USS Gauge Steel. Class - #80 Hoist shall be provided, power-up and down, with cab PTO controls to include detailed specifications as listed in Classification #1.

**VAN BODIES**

1. **CLASSIFICATION:**

Van Bodies shall be reinforced aluminum construction. Exterior panels shall be .40" thickness minimum and sides shall be beaded on 4" centers, for extra strength and rigidity, with 5-post, smooth front. Side uprights, top rail roof bows, and radius shall be extruded aluminum section of minimum .125 thickness. Corner post shall be extruded aluminum minimum of .125 thickness. Side sills shall be extruded aluminum minimum of .156 thickness. Exterior panels shall be riveted to uprights and roof on not less than 2" centers.

Rivets shall be of the side lock" moisture proof type. Uprights and roof bows shall be installed at 12" centers to provide adequate strength. All roof joints, side panels, and front panels shall be leak-proof. Body shall have a minimum of 7, three (3") inch cross members, #12 gauge aluminum or of a heavy-duty steel gauge 4" type, securely mounted to the truck chassis by means of "U" bolts. Interior of body shall be protected on sides and front with 1/4" grade AC waterproof plywood lining approximately 36" high, installed 8" above floor, with lengthwise slats above extending to roof. Front of body shall be provided with shatterproof glass windows of not less than 220 square inches in area and aligned with cab rear windows. Floor shall be kiln dried 4 x 4 (finished dimension) oak construction or as specified in the Invitation to Bid. Rear of body shall be equipped with full width roll-up door with safety catch and key lock.

**TYPE VB-1** Van Body, complete as per above specifications and at least 12 ft. long, 78" high and 88" wide.

**TYPE VB-2** Van Body, complete as per above specifications and at least 14 ft. long, 78" high and 88" wide.

### **COMPACT VANS**

1. **CLASSIFICATION:**

Bodies shall be reinforced steel construction. They shall have full width rear doors with safety glass and locks. Maintenance accessibility shall be convenient and not require major removal of components to change oil, oil filter or air filters. It should also offer ease of service to windshield washer reservoir, master brake cylinder, oil crankcase check, automatic transmission fluid level check, battery and radiator service. Driver's seat should be adjustable and a passenger seat shall be included.

**TYPE CV-1** Shall have wheelbase of at least 123" with curbside full width opening doors and as in Classification #1, Compact Vans.

**TYPE CV-2** Shall have wheelbase of at least 123" with seating capacity of at least 12 adult passengers; seat belts shall be provided for all passengers. Van shall be provided with safety glass all sides and with a curbside double door safety step and as in Classification #1, Compact Vans.

Attention Bidder:

This bid document may not contain all of the documents that you will need to complete the bid submission. On occasion, it is not possible to include the following:

**Exhibits**

**Drawings**

**Attached specifications**

**Attached documents**

If you have not received a corresponding attachment, drawing or exhibit that is referenced in the bid document you may obtain it by contacting the Procurement Customer Service Unit at 215-686-4720.



## **CITY OF PHILADELPHIA**

### **INSTRUCTIONS FOR GETTING PAID** **BY THE CITY OF PHILADELPHIA**

The City attempts to process invoices in a timely manner. Delays can occur because of incomplete or inaccurate invoicing information. Please make sure that all your invoices contain the following information to help the City in paying you as quickly as possible.

- 1. AFTER THE DELIVERY OR SERVICES HAS BEEN COMPLETED YOU MUST SUBMIT THREE (3) COPIES OF AN INVOICE FOR PAYMENT TO THE RECEIVING DEPARTMENT LISTED ON THE PURCHASE ORDER.**
- 2. THE INVOICE MUST CORRECTLY REFERENCE THE PURCHASE ORDER NUMBER, THE VENDOR NAME, ADDRESS AND FEDERAL EMPLOYER IDENTIFICATION NUMBER.**
- 3. CHECKS WILL ONLY BE MADE PAYABLE TO THE COMPANY NAME AS SHOWN ON THE PURCHASE ORDER, THE INVOICE MUST REFLECT THIS SAME COMPANY NAME AS THE "PAY TO".**
- 4. THE INVOICE MUST SHOW THE QUANTITY AND TYPE OF ITEM OR SERVICE AND THE PRICE.**
- 5. THE UNIT OF PURCHASE ON THE INVOICE MUST AGREE WITH THE UNIT CITED ON THE PURCHASE ORDER. REFERENCE TO THE SPECIFIC LINE ITEM IS HELPFUL.**

Paying vendors is the responsibility of the *receiving* City Department(s), not the Procurement Department. Vendors should bring any problems concerning payments to the attention of the appropriate City receiving department. The name and number of the contact person can generally be found on the purchase order. If all necessary paperwork has been submitted to the department and questions still remain, vendors should contact:

**City of Philadelphia  
Accounting Verification  
Room 1340 Municipal Services Building  
1401 J.F.K. Blvd.  
Philadelphia, PA 19102  
Te. 215 686 6365**

**IN YOU ARE INTERESTED IN RECEIVING YOUR PAYMENTS ELECTRONICALLY RATHER THAN BY CHECK PLEASE SEE ATTACHED LETTER & ACH VENDOR ENROLLMENT AND CHANGE FORM.**

## GENERAL BIDDERS GUIDELINES\*

The following checklist will assist you in the preparation of your bid. Failure to adhere to these instructions may result in your bid being disqualified.

- Read the entire bid so that you fully understand all of the requirements. Bidder must meet all qualifications and requirements.
- Bids and pricing must be written in ink or typed. Faxed bids will not be accepted.
- Make sure that you have signed the Contract Page and affixed your Corporate Seal as required.
- If applicable, sign and return all addenda.
- All bids must be submitted to the City of Philadelphia **no later than 10:30 AM** on the date that the bid opens. **Bids MUST be placed in the Bid Box** (slot located outside of Room 170A) prior to the bid opening. Bids that are not in the bid box prior to the bid opening may be disqualified.
- It is the bidder's responsibility to ensure that the bids are submitted in a timely manner and placed in the bid box prior to the bid opening. If the bid is being sent by courier or mail, it is recommended that the bid be sent early. The bid should arrive at least one business day before the bid opens to ensure timely receipt.
- All bids **must** be placed in a **sealed** envelope. **The Bid Number, Opening Date and Company Name MUST be clearly labeled on the envelope.** If the bid is being delivered by courier or express mail, the bid **must** be in a **separate** sealed envelope inside the courier's envelope or express mail. This is to ensure that all bids conform to the sealed bid process of the City of Philadelphia.
- Make sure you submit the appropriate Bid Security and Bid Submission Fee with your bid. Refer to Section 1 of the bid and Sections 2 and 3 of the Terms and Conditions. See below.

If the bidder is not enrolled and does not intend to enroll; or if the total value of the bid submitted exceeds \$500,000.00, the Master Bid Security Program is not applicable. Bidders instead **MUST** submit with their bid a refundable Certified, Treasurer's or Cashier's Check, Bank Money Order or United States Postal Money Order in the amount as specified in Paragraph 2 entitled "Bid Security", of the "Terms and Conditions of Bidding and Contract".

2. **BID SECURITY.** Unless the bidder is enrolled under the City's Annual Master Bid Security Program or an individual bid bond is required in the Invitation and Bid, all bids must be accompanied by a Certified Check, Treasurer's Check, Cashier's Check, Bank Money Order, or United States Postal Money Order made payable to the order of "The City of Philadelphia" in the proper amount as shown below:

AMOUNT OF BID OR ESTIMATED CONTRACT	AMOUNT OF CERTIFIED CHECK
\$32,000.00 or less	No Check Required
\$32,000.01 - \$99,999.99	\$500.00
\$100,000.00 - \$249,999.99	\$2,000.00
\$250,000.00 - \$499,999.99	\$4,000.00
\$500,000.00 or more	\$6,000.00

When computing amount of Bid for Certified Check purposes, do NOT deduct for trade-ins.

3. **BID PROCESSING FEE.** In addition to bid security and any other fee or monies required to be submitted with the bid, the bid shall be accompanied by a non-refundable processing fee in the form of a separate standard check, bank money order or United States postal money order made payable to the order of “City of Philadelphia” in an amount based on the gross amount of the bid in accordance with the formula below. Cash is not acceptable.

AMOUNT OF BID OR ESTIMATED CONTRACT	AMOUNT OF PROCESSING FEE
\$ 32,000.00 or less	No Check Required
\$ 32,000.01 - \$ 100,000.00	\$ 10.00
\$ 100,000.01 - \$ 300,000.00	\$ 30.00
\$ 300,000.01 - \$ 500,000.00	\$ 50.00
\$ 500,000.01 - \$1,000,000.00	\$100.00
\$1,000,000.01 - \$2,000,000.00	\$200.00
\$2,000,000.01 - \$3,000,000.00	\$300.00
\$3,000,000.01 - \$4,000,000.00	\$400.00
\$4,000,000.01 - \$5,000,000.00	\$500.00
\$5,000,000.01 or more	\$600.00

- Do not combine any payment amounts. All payments should be individual and specific.
- If an alternate to any item is being offered, you must follow the instructions in Section 4 of the Terms and Conditions.

4. **SPECIFICATIONS.** When a formal, numbered, specification is referred to in the Invitation and Bid, no deviation therefrom will be permitted, except if/as indicated in the Invitation and Bid and the bidder will be required to furnish articles and/or services in conformity with that specification. When catalogues, model numbers, trade names, or cuts are listed in the Invitation and Bid, they are, unless otherwise specified, included for the purposes of furnishing bidders with information concerning the style, type or kind of article and /or service desired. A bidder may offer an article and/or service which he/she certifies to be equal or better in quality, performance and other essential characteristics. If submitting an alternate, the bidder must specify the alternate (e.g., make and model #) in the bid and submit with the bid a complete description of the article (including any technical literature) and/or service proposed to be furnished. Failure to do so will require the bidder to furnish the article and/or service specified in the Invitation and Bid. The Procurement Commissioner reserves the sole right to determine whether alternates offered are equal or better. Unless otherwise provided in the bid specifications, all items offered by the bidder must be new. A “new” item is one which will be used first by the City. This clause shall not be construed to prohibit bidders from offering goods, supplies, equipment, or materials containing recycled materials or printing with recycled content; bidders intending to provide goods made with recycled materials should notify the Procurement Department.

- If the bid is going to be awarded as a whole, you must bid on all items. See Section 3 of the bid: Bid Evaluation and Award.
- If the bid requires a site inspection, attendance at a Pre-Bid Meeting, samples, financial information or other data you must adhere to these requirements.
- Do not submit any counter terms or conditions. **Your bid may be rejected.**
- Please double check all mathematical calculations for errors.

If you have questions, please contact Public Information Unit at [bid.info@phila.gov](mailto:bid.info@phila.gov) or call 215-686-4720.

\*This information is provided for guidance only and does not preclude your responsibility to read fully and respond to all portions of the bid.



**CITY OF PHILADELPHIA  
PROCUREMENT DEPARTMENT  
Public Information Unit**

**This Is Not A Right To Know Request. This form cannot be used to submit a Right To Know Request. See City of Philadelphia Open Records Policy: <http://www.phila.gov/privacy/pdfs/finalcityopenrecords.pdf>**

**ATTENTION VENDORS**

If your company would like to receive the results of a particular bid, the Public Information Unit of the Procurement Department will forward this information to you at a **\$10.00 fee, company check or money order only, no personal checks or cash, for each bid number requested.** Please be advised that bid tabulations **are not available** by telephone. If you have any questions, Please call 215-686-4755 or 215-686-4756.

**BID RESULTS REQUEST FORM**

Please complete form below. Only one (1) request per form.

Date of Request: \_\_\_\_\_

Bid Number Requested: \_\_\_\_\_ Opening Date: \_\_\_\_\_

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

Company Representative: \_\_\_\_\_

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

Email Address \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**Mail this Request to the address below and enclose the following items:**

- Company check or Money Order payable to “City of Philadelphia”
- A self-addressed stamped envelope which is at least 9 ½” x 12 ½” or larger for each Bid requested.

**YOUR REQUEST CANNOT BE PROCESSED IF YOU  
DO NOT PROVIDE THE ABOVE ITEMS**

**Mail Request To:**

The Procurement Department Public Information Unit  
Attention: Bid Results  
1401 JFK Blvd.  
Room 170B  
Philadelphia, PA 19102

**COMPANY CHECK OR MONEY ORDER ONLY**



# CITY OF PHILADELPHIA

Procurement Department  
120 Municipal Services Building  
Philadelphia, PA 19102-1685  
(215) 686-4720  
(215) 686-4716 Fax

Hugh Ortman  
Procurement Commissioner

## Master Bid Security Program for Service, Supplies and Equipment Bids Period of Coverage: July 1, 2013 – June 30, 2014

### (Bids for Professional Consulting Services, Public Works, Construction and Demolition [wrecking and building removal] are not covered under the Master Bid Security Program)

Dear Vendor:

The Philadelphia City Charter requires that each bid submission over \$32,000 be accompanied by a certified check in the amount specified in the bid invitation. This requirement can be met for most bids if the Bidder is covered under the City's Master Bid Security Program. This program provides bid security coverage for Service, Supply and Equipment bids that have a total dollar value of over \$32,000 up to \$500,000.

To file for coverage under the Bid Security Program, for the period **July 1, 2013 to June 30, 2014**, complete the enclosed application and return it with a check for **\$140.00**. Make the check payable to "City of Philadelphia". It is **non-refundable**. To clarify the precise use of the check, enter the words "**Bid Security Program**" 2013 – 2014 on the face of the check.

If you do not become a participant in the program at this time, you may still submit bids. However, they must be accompanied by a certified check in the amount specified in the Terms and Conditions of Bidding.

For additional information or inquiries regarding this program, please contact: The Public Information Unit at (215) 686-4719, (215) 686-4720 or (215) 686-4721.

IF A RECEIPT IS REQUESTED, PLEASE ENCLOSE A SELF-ADDRESSED STAMPED ENVELOPE.

Forward Check with Application to  
CITY OF PHILADELPHIA  
**MASTER BID SECURITY PROGRAM**  
170A Municipal Services Building  
Philadelphia, PA 19102-1685

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

**Fed EIN/SSN:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City, State, Zip:** \_\_\_\_\_

**Contact Person:** \_\_\_\_\_

**E Mail Address:** \_\_\_\_\_

**Telephone No:** (\_\_\_\_) \_\_\_\_\_ **Fax No:** (\_\_\_\_) \_\_\_\_\_

A. Check payable to the City of Philadelphia in the amount of \$140.00 for 7/1/13 to 6/30/14  
**DO NOT SEND CASH. NO PERSONAL CHECKS.**

*Internal Use Only*

Rcvd. \_\_\_/\_\_\_/\_\_\_ Pymt. Type \_\_\_\_\_ Ck. Amt. \$ \_\_\_\_\_ Ck.# \_\_\_\_\_



# CITY OF PHILADELPHIA

PROCUREMENT DEPARTMENT  
120 Municipal Services Building  
Philadelphia, Pa 19102-1685

Hugh Ortman  
Procurement Commissioner

Dear Valued Vendor,

The City of Philadelphia is pleased to announce a new online **Vendor Invoice Information (VII) Website** which will allow businesses such as yours to inquire about the status of invoices billed against purchase orders and professional services contracts. The only requirement is that your invoices utilize a unique number – alpha, numeric or a combination of the two.

This system will be operational twenty four hours a day, seven days a week. All you have to do is log on to the City of Philadelphia website: [www.phila.gov](http://www.phila.gov), click on “Vendor Invoice Information” under the “Help Me” section of the home page, enter your Federal Employer Identification Number (FEIN) and a valid active purchase order. Then, agree to a waiver statement and follow the prompts to get an up-to-date status on your payments.

You are urged to give it a try and see for yourself how easy it is to use. If you should happen to experience any problems, or if you would like to comment on this new system, please e-mail us using the question and comment field provided on the site.

We believe that you will find this new way of obtaining payment information convenient and easy to use.

**TERMS AND CONDITIONS OF BIDDING AND CONTRACT**

**BID SUBMISSION**

**1. PREPARATION AND SUBMISSION OF BID.**

All bids must be written in ink or typewritten and made on the forms issued and signed in ink by a person with legal authority to bind the bidder. The contract awarded hereunder shall consist of the Invitation and Bid, all addenda thereto issued by the City, all exhibits and attachments issued and/or accepted by the City and these Terms and Conditions of Bidding and Contract (the "Contract"). It is the sole responsibility of the bidder to ensure that it has received any and all addenda and the Procurement Commissioner may in his/her sole discretion reject any bid for which all addenda have not been executed and returned in accordance with the instructions provided therein. No bid may be considered if received after the date and time for the opening of bids established by the Invitation and Bid, nor may any bid be modified after that date and time. The time of bid opening shall be the time displayed on the City's official bid clock located at the bid room. In the event of any discrepancy between actual time and the City's official bid clock, the latter shall determine the time of bid opening.

**2. BID SECURITY.** Unless the bidder is enrolled under the City's Annual Master Bid Security Program or an individual bid bond is required in the Invitation and Bid, all bids must be accompanied by a Certified Check, Treasurer's Check, Cashier's Check, Bank Money Order, or United States Postal Money Order made payable to the order of "The City of Philadelphia" in the proper amount as shown below:

AMOUNT OF BID OR ESTIMATED CONTRACT	AMOUNT OF CERTIFIED CHECK
\$ 32,000.00 or less	No Check Required
\$ 32,000.01 - \$ 99,999.99	\$ 500.00
\$100,000.00 - \$249,999.99	\$2,000.00
\$250,000.00 - \$499,999.99	\$4,000.00
\$500,000.00 or more	\$6,000.00

When computing amount of Bid for Certified Check purposes, do NOT deduct for trade-ins.

Any bid in excess of \$500,000 is not covered by the Annual Master Bid Security Program, and bidder must submit a certified check, treasurer's check, cashier's check, bank money order, or United States postal money order made payable to the order of "The City of Philadelphia" in the required amount.

Once the lowest responsive and responsible bidder has been determined all other bidders will receive a refund in the amount of the bid security submitted. Bid security submitted by the lowest responsive and responsible bidder will be refunded after receipt of all duly executed Contract documents, required fees, bonds or other performance security. Funds submitted for the Master Bid Security Program are not refundable.

**3. BID PROCESSING FEE.** In addition to bid security

and any other fee or monies required to be submitted with the bid, the bid shall be accompanied by a non-refundable processing fee in the form of a separate standard check, bank money order or United States postal money order made payable to the order of "City of Philadelphia" in an amount based on the gross amount of the bid in accordance with the formula below. Cash is not acceptable.

AMOUNT OF BID OR ESTIMATED CONTRACT	AMOUNT OF PROCESSING FEE
\$ 32,000.00 or less	No Check Required
\$ 32,000.01 - \$ 100,000.00	\$ 10.00
\$ 100,000.01 - \$ 300,000.00	\$ 30.00
\$ 300,000.01 - \$ 500,000.00	\$ 50.00
\$ 500,000.01 - \$1,000,000.00	\$100.00
\$1,000,000.01 - \$2,000,000.00	\$200.00
\$2,000,000.01 - \$3,000,000.00	\$300.00
\$3,000,000.01 - \$4,000,000.00	\$400.00
\$4,000,000.01 - \$5,000,000.00	\$500.00
\$5,000,000.01 or more	\$600.00

**4. SPECIFICATIONS.** When a formal, numbered, specification is referred to in the Invitation and Bid, no deviation therefrom will be permitted, except if/as indicated in the Invitation and Bid and the bidder will be required to furnish articles and/or services in conformity with that specification. When catalogues, model numbers, trade names, or cuts are listed in the Invitation and Bid, they are, unless otherwise specified, included for the purposes of furnishing bidders with information concerning the style, type or kind of article and/or service desired. A bidder may offer an article and/or service which he/she certifies to be equal or better in quality, performance and other essential characteristics. If submitting an alternate, the bidder must specify the alternate (e.g., make and model #) in the bid and submit with the bid a complete description of the article (including any technical literature) and/or service proposed to be furnished. Failure to do so will require the bidder to furnish the article and/or service specified in the Invitation and Bid. The Procurement Commissioner reserves the sole right to determine whether alternates offered are equal or better. Unless otherwise provided in the bid specifications, all items offered by the bidder must be new. A "new" item is one which will be used first by the City. This clause shall not be construed to prohibit bidders from offering goods, supplies, equipment, or materials containing recycled materials or printing with recycled content; bidders intending to provide goods made with recycled materials should notify the Procurement Department.

**5. PATENTS.** The successful bidder shall be solely responsible for all royalties and charges that may be due to any patent holder for or on account of the use of any patented appliance, product or processes. Evidence of such payment shall be submitted upon request of the Procurement Commissioner and failure to submit such evidence may, in the sole discretion of the Procurement Commissioner, result in rejection of the bid or constitute an event of default, entitling the City to all rights and remedies as provided herein in Section 16 and/or 18.

**6. LOCAL BIDDING PREFERENCE**

In accordance with Chapter 17-109 of the Philadelphia Code relating to Local Bidding Preferences for Procurement Contracts, this bid may be subject to a

## TERMS AND CONDITIONS OF BIDDING AND CONTRACT

local bid preference. In order to determine eligibility to receive the preference, if applicable, bidder must be certified at the time of the bid opening and must submit with the bid, the Local Business Entity Certification Number\* as issued by the Procurement Department for the prime contractor.

\*Note: If you wish to apply for Local Business Entity (LBE) certification, go to [www.phila.gov/bids](http://www.phila.gov/bids). Please allow sufficient time prior to bidding for processing of the LBE application.

### EVALUATION AND AWARD

**7. TYPES OF BIDDER RESTRICTED.** Bidders must not be a party to more than one bid for the same article or service. A violation of this condition may, in the sole discretion of the Procurement Commissioner, result in rejection of any or all such bids in which the bidder has an interest.

**8. RESPONSIVENESS.** Subject to the right of the Procurement Commissioner to waive non-responsiveness as set forth below in this Section, these Terms and Conditions of Bidding and Contract and the specifications and requirements included in the Invitation and Bid are mandatory and must be strictly followed by all bidders in the preparation and submission of their bids. After bids are opened, the Procurement Department, and other City departments or agencies where appropriate or specified, shall review all bids for responsiveness to these Terms and Conditions of Bidding and Contract and the specifications and requirements included in the Invitation and Bid.

Any bid which is incomplete, obscure, conditional, or unbalanced, which contains additions not called for, or irregularities of any kind, including alterations or erasures, or which fails to conform in any respect to these Terms and Conditions of Bidding and Contract and the specifications and requirements included in the Invitation and Bid is non-responsive and shall be rejected, except where the Procurement Commissioner, in his/her sole discretion, determines that the non-responsiveness is not material to the Invitation and Bid or that a waiver of the non-responsiveness is otherwise permitted by the Invitation and Bid, by these Terms and Conditions of Bidding and Contract or by law. The Procurement Department's determination of non-responsiveness shall be final and any bid rejected as non-responsive shall not be eligible for contract award.

**9. RESPONSIBILITY.** Unless otherwise specified, after bids are opened, the Procurement Department, and other City departments or agencies where appropriate or specified, shall review and may investigate the responsibility, including, but not limited to, the qualifications, references, capacity and ability to perform the Contract resulting from the Invitation and Bid in accordance with its terms, and integrity, of the lowest responsive bidder. All determinations of bidder responsibility shall be vested in the sole discretion of the Procurement Commissioner and other City officials. Any bidder who is deemed not responsible shall be ineligible for award of the Contract.

Bidders deemed not responsible will be notified of such determination and the reasons therefore in writing by the Procurement Department, and shall have the right to contest the determination by submitting to the

Procurement Department, within forty-eight (48) hours after receipt of its written determination, a written request for reconsideration that includes information relating to the bidder's qualifications and responsibility and demonstrating the insufficiency of the reasons stated in the written determination finding the bidder not responsible. Any further determination of a contesting bidder's responsibility shall be vested in the sound discretion of the Procurement Commissioner and other City officials.

**10. CANCELLATION AND AWARD.** The Procurement Commissioner, in his/her sole discretion, may cancel any Invitation and Bid prior to bid opening. After bid opening, the Procurement Commissioner, in his/her sole discretion, may reject all bids, if deemed in the best interest of the City. In all cases where a Contract award is made by the Procurement Department, the bidder is bound by the terms and conditions of the Invitation and Bid upon the submission of its bid. All bids are valid for a period of not less than 60 days, or as otherwise specified in the Invitation and Bid. If the bid has not been awarded within the specified period of time, the bid shall be valid for subsequent award only upon the express consent of the bidder, with no change to the submitted bid. Any price increases/decreases expressly provided for in the Invitation and Bid will be allowed. All Contract awards shall be made by the Procurement Department upon written notice to the bidder that is determined by the Procurement Department to be the lowest responsive and responsible bidder.

**11. QUANTITIES AWARDED.** For requirements contracts only, the articles and quantities of such articles as set forth in the Invitation and Bid are estimates and the Procurement Commissioner, in his/her sole discretion, may make an award for all or some of the articles bid and in such quantities as the Procurement Commissioner shall deem appropriate. For firm limit contracts, it is the City's intent to award based upon the quantities set forth in the Invitation and Bid, but the City reserves the right to award more or less.

**12. DELIVERY, PRICE INCREASES AND TIE BIDS.** All articles must be delivered at the price(s) bid, FOB Destination. Bids containing reservations of the right to increase the price(s) bid, including, but not limited to, late payment charges, will not be considered, except where the Procurement Commissioner, in his/her sole discretion, finds it in the City's best interest to do so. In the event of an absolute tie, the award decision will be made in the best interests of the City as determined by the Procurement Commissioner.

### CONTRACT EXECUTION AND CONFORMANCE

**13. CONTRACTS.** Awards of contracts in amounts less than or equal to \$32,000 shall become contracts binding upon the City upon written notice of award by the Procurement Commissioner. Awards of contracts in amounts greater than \$32,000 shall not become contracts binding upon the City until after written notice of award is made and until after all of the following conditions have been satisfied:

a. Successful bidder posts sufficient performance security, as required in the Invitation and Bid, within the

## TERMS AND CONDITIONS OF BIDDING AND CONTRACT

time specified in the written notice of award;

b. Successful bidder posts a payment bond or other payment security, if and as required by the Invitation and Bid, within the time specified in the written notice of award;

c. Approval of the Contract as to form by the City's Law Department;

d. Certification by the Director of Finance and City Controller as to the availability of funds; and

e. Execution of the Contract by the Procurement Commissioner.

The Procurement Commissioner may, in his/her sole discretion, cancel any Contract award if any of the above conditions (a-e) are not satisfied, or if the Procurement Commissioner, in his/her sole discretion, determines cancellation to be in the best interests of the City. The bidder agrees that in the event of such cancellation, it shall not have any claim against the City, including any claim for breach of contract or of any other legal duty, or for lost profits, costs, damages, or expenses of any kind.

**14. PERFORMANCE SECURITY.** The City of Philadelphia requires performance security for contracts greater than \$32,000. If the amount of the contract to be awarded is greater than \$32,000 but less than or equal to \$500,000, the successful bidder is required to participate in the City's Master Performance Security Program by paying to the City a non-refundable fee of \$5.00 per thousand dollars of the contract amount for firm limit contracts and \$4.00 per thousand dollars of the contract amount for requirements contracts, or as otherwise specified. If the amount of the contract to be awarded is in excess of \$500,000 the successful bidder is required to furnish an individual performance bond, issued by a surety approved by the City on a form prepared by the City's Law Department and in the amount specified in the notice of contract award. The successful bidder is also required to pay a bond preparation fee to the City's Law Department in an amount prescribed by Chapter 17-700 of The Philadelphia Code; a schedule of such fees may be obtained from the Procurement Department's Public Information Office.

**15. INSURANCE.** Unless otherwise specified, the successful bidder (referred to in this Section as "Contractor") shall, at its sole cost and expense, procure and maintain in full force and effect, during the entire period of the Contract (including any applicable warranty and/or renewal periods), the minimum types of insurance specified below. All insurance shall be procured from reputable insurers authorized to do business in the Commonwealth of Pennsylvania and shall be acceptable to the City. All insurance required herein shall be written on an "occurrence" basis and not a "claims-made" basis. The City of Philadelphia, its officers, employees, and agents are to be named as additional insured on all policies required hereunder, except the Workers' Compensation and Employers' Liability. Also, an endorsement is required stating that the coverage afforded these parties as additional insured will be primary to any other coverage available to them. The City's coverage as an additional insured shall be primary coverage. The insurance shall provide

for at least thirty (30) days prior written notice to be given to the City in the event coverage is materially changed, canceled or non-renewed. Certificates of insurance evidencing the required coverages shall be submitted to the City within fifteen (15) days of notice of contract award. The City reserves the right to require the Contractor to furnish certified copies of the original policies of all insurance required hereunder at any time upon fifteen (15) days prior written notice. The insurance requirements set forth herein are not intended and shall not be construed to modify, limit, or reduce the indemnifications made in this Contract by the Contractor to the City of to limit the Contractor's liability under this Contract to the limits of the policies of insurance required to be maintained by the Contractor hereunder.

### (a) WORKERS COMPENSATION AND EMPLOYERS LIABILITY

(1) Workers' Compensation – Statutory limits

(2) Employers Liability - \$100,000 Each Accident – Bodily Injury by Accident; \$100,000 Each Employee – Bodily Injury by Disease; \$500,000 Policy Limit – Bodily Injury by Disease

(3) Other states insurance including Pennsylvania

### (b) GENERAL LIABILITY INSURANCE

(1) Limit of Liability: \$1,000,000 per occurrence combined single limit for bodily injury (including death) and property damage liability.

(2) Coverage: Premises operation: Blanket Contractual liability; Personal Injury liability; Products and completed operations; Independent Contractors; Employees as additional insured; Cross liability; Broad form property damage (including loss of use) liability; Asbestos abatement liability coverage (Note: Required for asbestos abatement projects only).

### (c) AUTOMOBILE LIABILITY

(1) Limit of Liability: \$1,000,000 per occurrence combined single limit for bodily injury (including death) and property damage liability.

(2) Coverage: owned, non-owned and hired vehicles.

**16. INDEMNIFICATION.** All bidders shall indemnify, defend and hold harmless the City, its officers, employees and agents from and against any and all losses, costs (including, but not limited to, litigation and settlement costs and counsel fees), claims, suits, actions, damages, liabilities and expenses, occasioned wholly or in part by the bidder's act or omission or fault or negligence or the act or omission or fault or negligence of bidder's agents, subcontractors (including suppliers), employees or servants in connection with the Contract, including, but not limited to, those acts or omissions or faults or negligence in connection with loss of life, bodily injury, personal injury, damage to property, contamination or adverse effects on the environment, the bidder's default under the Contract, losses incurred by the City's Master Performance Security Program, failure to pay subcontractors and suppliers and any infringement or violation of any proprietary right (including, but not limited to, patent, copyright, trademark, service mark and trade secret). This obligation to indemnify, defend and hold harmless the City, its officers, employees and agents shall survive the termination of the Contract resulting from the Invitation and Bid.

**17. FAILURE TO EXECUTE CONTRACT.** Any bidder not lawfully released from its bid, who refuses to execute a contract in accordance with its bid or who

## TERMS AND CONDITIONS OF BIDDING AND CONTRACT

fails, refuses or is unable to furnish any required payment security, performance security or insurance, as may be required by the Invitation and Bid and/or these Terms and Conditions of Bidding and Contract, shall be liable for the entire amount of its bid security, as liquidated damages to the City; or if bid security is furnished under the Annual Master Bid Security Program, for 10% of the amount of its bid, as liquidated damages to the City; or where the damages are readily ascertainable by the City, for the actual loss, cost or damage incurred by the City as a result of its failure to execute the contract or to furnish such bonds, performance security or insurance.

**18. ASSIGNMENT.** The successful bidder shall not assign the Contract resulting from the Invitation and Bid, or any part of the Contract, or any right to any monies to be paid under the Contract, or delegate performance of the Contract, without obtaining the prior written consent of the Procurement Commissioner. The decision whether to consent to an assignment is within the Procurement Commissioner's sole discretion. In no case shall the Procurement Commissioner's consent to the assignment of any monies to be paid under the Contract relieve the bidder from faithful performance of any of its obligations under the Contract or change any of the terms and conditions of the Contract. Any purported assignment in violation of this provision shall be of no effect.

**19. DEFAULT.** All work performed and goods and services rendered by a successful bidder (referred to in this Section as "Contractor") under any Contract resulting from the Invitation and Bid shall strictly conform to these Terms and Conditions of Bidding and Contract and the specifications and requirements contained in the Invitation and Bid. The successful bidder shall comply with all applicable federal, state and local laws, statutes and ordinances and the regulations of all governmental departments, boards, agencies, and commissions. The following shall constitute events of default under any Contract resulting from the Invitation and Bid:

a. Failure by Contractor to comply with any provision or Section of the Contract, including the bid specifications contained in the Invitation and Bid and these Terms and Conditions of Bidding and Contract and/or failure by Contractor to comply with any federal, state and local law, statute, ordinance or regulation of any governmental department, board, agency and commission.

b. Falseness of any representation or warranty made in the Contract or other document(s) submitted to the City by Contractor in connection with the Invitation and Bid.

c. Failure by Contractor to pay its suppliers or subContractors, misappropriation of any funds provided under the Contract or failure to notify City upon discovery of any misappropriation.

d. A violation of law by Contractor which results in its making a guilty plea, a plea of nolo contendere, or conviction of a criminal offense by Contractor, its directors, employees, or agent or indictment or charges, in the sole judgment of the Procurement Commissioner, adversely affect the performance of the Contract.

e. Failure by Contractor to comply with the Mayoral

Executive Order establishing the City's antidiscrimination policy relating to the participation of minority, woman and disabled owned disadvantaged business enterprises.

f. The Procurement Department's determination that the Contractor is not a responsible bidder on the Invitation and Bid, where such determination is made, and is based upon, information received after award of the Contract and/or after execution of the Contract by the Procurement Commissioner and/or after satisfaction of any or all other conditions of a binding Contract set forth in Section 2 above.

g. Any other act or omission identified in these Terms and Conditions of Bidding and Contract or elsewhere in the Invitation and Bid as an event or condition constituting default.

Upon the occurrence of an event of default, the Procurement Commissioner, in his/her sole discretion, may require Contractor to cure the default within a period of time to be determined by the Procurement Commissioner, or terminate the Contract in whole or in part and exercise any one or more of the following remedies (which remedies may be concurrent and shall be in addition to and not in lieu of the remedies available to the City at law, in equity, under any bond(s) filed in connection with the contract or under other sections of these Terms and Conditions of Bidding and Contract and Contract):

a. Purchase goods and/or services from others in substitution of goods or services that were not furnished or performed by Contractor or that were defective or otherwise in violation of any provision of the Contract; the cost of such substituted goods and services shall be the sole responsibility of Contractor and Contractor agrees to pay immediately, upon receipt of the City's invoice, the difference between the Contract price and the substituted product or service cost, plus any other loss, cost or damages incurred by the City.

b. Appropriate to the payment of the difference between the Contract price and the cost of such substitute goods or services, and the amount of any other loss, cost or damage incurred by the City as a result of the default, any monies which may then be due and payable to Contractor under this Contract or any other Contract that Contractor then has with the City.

The City shall notify Contractor in writing of such termination, which shall be effective as of the date specified in the notice of termination (the "Termination Date"). The Procurement Commissioner may, in his/her sole discretion, require Contractor to continue to furnish all goods and perform all services required under the Contract until the Termination Date, in which case, subject to the remedies enumerated above, the successful bidder shall be paid in accordance with the Contract therefore. If the City requires Contractor to cure the event(s) of default, or to continue to furnish goods or services until the Termination Date, and Contractor refuses or fails to do so, then such failure shall itself be deemed an event of default under this Section, for which the City may exercise any of its rights hereunder.

**20. PAYMENT FOR EQUIPMENT.** Unless otherwise provided in the bid specifications, when equipment involves installation, (which shall also be interpreted to

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mean erection and/or setting up or placing in position for service or use) and/or testing, and where such installation or testing is delayed though no fault of the contractor, contractor shall be entitled to a payment equal to 50% of the price bid when such equipment is delivered on site and to a further payment equal to an additional 25% of the price bid when the equipment is installed and ready for test. The balance shall be paid only after the equipment is tested and found to be satisfactory by the City. If the equipment must be tested, but installation is not required to be made by the supplier or if the equipment must be installed but testing is not required, and the installation or testing is delayed through no fault of the contractor, contractor shall be entitled to a payment equal to 75% of the price bid at the time of delivery and the balance shall be paid after satisfactory testing and/or installation, as required.

### TAX MATTERS

**21. TAX EXEMPTION.** The City of Philadelphia is exempt from the payment of any federal excise or transportation taxes and any Pennsylvania sales tax. The price bid must be net, exclusive of taxes. However, when under established trade practice any federal excise tax is included in list prices, bidder may quote the list price and shall show separately the amount of the federal tax, either as a flat sum or as a percentage of the list price, which shall be deducted by the City. In the event bidder pays any sales or use tax, bidder hereby assigns to City, or City's agent, all of its rights, title and interest in any sales or use tax which may be refunded as a result of the purchase of any articles furnished in connection with the Contract and bidder, unless directed by the City, shall not file a claim for any sales or use tax refund subject to this assignment. Bidder authorizes the City, in City's name or the name of bidder, to file a claim for refund of any sales or use tax subject to this assignment.

**22. TAX INDEBTEDNESS.** The City of Philadelphia does not wish to do business with tax delinquents or other businesses indebted to the City. In furtherance of this policy, the following certifications have been developed and shall form a part of any Contract resulting from the Invitation and Bid. The successful bidder or other entity Contracting with the City is referred to below as the "Contractor".

a. Contractor's Certification of Non-Indebtedness - Contractor hereby certifies and represents that Contractor and Contractor's parent company(ies) and subsidiary(ies) are not currently indebted to the City of Philadelphia (the "City") and will not at any time during the term of this Contract (including any extensions or renewals thereof) be indebted to the City, for or on account of any delinquent taxes (including, but not limited to, taxes collected by the City on behalf of the School District), liens, judgments, fees or other debts for which no written agreement or payment plan satisfactory to the City has been established. In addition to any other rights or remedies available to the City at law or in equity, Contractor acknowledges that any breach or failure to conform to this certification may, at the option of the City, result in the withholding of payments otherwise due to Contractor and, if such breach or failure is not resolved to the City's satisfaction within a reasonable time frame specified by the City in writing, may result in the offset of any such indebtedness against said payments and/or the

termination of this Contract for default (in which case Contractor shall be liable for all costs, losses and other damages resulting from the termination).

b. Subcontractor's Certification of Non-Indebtedness - Contractor shall require all subcontractors performing work in connection with this Contract ("subcontractor" shall also include suppliers providing goods or materials) to be bound by the following provision, and Contractor shall cooperate fully with the City in exercising the rights and remedies described below or otherwise available at law or in equity:

"Subcontractor hereby certifies and represents that subcontractor and subcontractor's parent company(ies) and subsidiary(ies) are not currently indebted to the City of Philadelphia ("City"), and will not at any time during the term of Contractor's Contract with the City (the "Contract"), including any extensions or renewals thereof, be indebted to the City, for or on account of any delinquent taxes (including, but not limited to, taxes collected by the City on behalf of the School District of Philadelphia), liens, judgments, fees or other debts for which no written agreement or payment plan satisfactory to the City has been established. In addition to any other rights or remedies available at law or in equity, subcontractor acknowledges that any breach or failure to conform to this certification may, at the option of the City, result in the withholding of payments otherwise due to subcontractor for services rendered in connection with the Contract and, if such breach or failure is not resolved to the City's satisfaction within a reasonable time frame specified by the City in writing, may result in the offset of any such indebtedness against said payments otherwise due to subcontractor and/or the termination of subcontractor for default (in which case subcontractor shall be liable for all costs, losses and other damages resulting from the termination)."

**23. TAX REQUIREMENTS.** Any person or entity who bids on and/or is awarded a contract by the City and/or School District of Philadelphia, is subject to Philadelphia's business tax ordinances and regulations. The City Solicitor has determined that anyone who is awarded a contract by the City and/or School District pursuant to a bid has entered into a contract within the City, and the subsequent delivery of goods into the City or performance of services within the City constitutes doing business in the City and subjects the successful bidder, including but not limited to, one or more of the following taxes:

- a. Business Income and Receipts Tax
- b. Net Profits Tax
- c. City Wage Tax

The successful bidder, if not already paying the aforesaid taxes, is required to apply to the Department of Revenue, 1401 John F. Kennedy Blvd., Public Service Concourse, Municipal Services Building, Philadelphia, PA 19102 for a tax identification number and to file appropriate business tax returns as provided by law. Questions should be directed to the Business and Earnings Tax Unit at (215) 686-6600.

### GENERAL INFORMATION

**24. COMPLIANCE WITH LAWS.** All goods and services and all documents and other materials

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furnished under the Contract shall conform with all applicable federal, state and local laws, statutes and ordinances and the applicable rules, regulations, methods and procedures of all governmental boards, bureaus, offices, commissions and other agencies. Contractor shall maintain during the term of the Contract all licenses, and authorizations required by any applicable federal, state or local law or regulation. **Applicable law shall include, without limitation, the laws stated in paragraphs 25 through 31 herein.**

### 25. NONDISCRIMINATION.

a. Any Contract awarded pursuant to the Invitation and Bid is entered into under the terms of the Philadelphia Home Rule Charter and in its performance, Contractor shall not discriminate nor permit discrimination against any person because of race, color, religion, national origin, or sex. Such discrimination shall constitute an event of default under this Contract entitling City to terminate this Contract forthwith. This right of termination shall be in addition to any other rights or remedies as provided herein in Section 19 or otherwise available to the City at law or in equity.

b. In accordance with Chapter 17-400 of The Philadelphia Code, Contractor agrees that its payment or reimbursement of membership fees or other expenses associated with participation by its employees in an exclusionary private organization, insofar as such participation confers an employment advantage or constitutes or results in discrimination with regard to hiring, tenure of employment, promotions, terms, privileges or conditions of employment, on the basis of race, color, sex, sexual orientation, gender identity, religion, national origin or ancestry, shall constitute an event of default under this Contract and shall entitle the City to all rights and remedies as provided herein in Section 19 or otherwise available to the City at law or in equity. Contractor agrees to include the immediately preceding sentence, with appropriate adjustments for the identity of the parties, in all subcontracts which are entered into pursuant to this Contract. Contractor further agrees to cooperate with the Commission on Human Relations of the City of Philadelphia in any manner which the said Commission deems reasonable and necessary for the Commission to carry out its responsibilities under Chapter 17-400 of The Philadelphia Code. Failure to so cooperate shall constitute an event of default under this Contract entitling the City to all rights and remedies as provided herein in Section 19 or otherwise available to the City at law or in equity.

**26. ETHICS REQUIREMENTS.** To preserve the integrity of City employees and maintain public confidence in the competitive bidding system, the City intends to vigorously enforce the various ethics laws as they relate to City employees in the bidding and execution of City contracts. Such laws are in three categories:

a. Gifts. Executive Order No. 02-04 prohibits City employees from soliciting or accepting anything of value from any person or entity seeking to initiate or maintain a business relationship with the City of Philadelphia, its departments, boards, commissions, and agencies. Bidder understands and agrees that if it offers anything of value to a City official or employee under circumstances where the receipt of such item would violate the provisions of this Executive Order

shall be subject to sanctions with respect to future City Contracts. Such sanctions may range from disqualification from participation in a particular Contract to debarment, depending on the nature of the violation. All bidders, agents or intermediaries who are solicited for gifts or gratuities by City employees are urged to report these incidents to the Inspector General, Aramark Tower, Third Floor, 1101 Market Street, Philadelphia, PA 19107.

b. City Employee Interest in City Contracts. In accordance with Section 10-1112 of The Philadelphia Home Rule Charter, no bid shall be accepted from, or Contract awarded to, any City employee or official, or any firm in which a City employee or official has a direct or indirect financial interest. All bidders are required to disclose any current City employees or officials who are employees or officials of the bidder's firm, or who otherwise would have a financial interest in the Contract.

c. Conflict of Interest. Both the State Ethics Act and the City Ethics Code prohibit a public employee from using his/her public office or any confidential information gained thereby to obtain financial gain for himself/herself a member of his/her immediate family, or a business with which he/she or a member of his/her immediate family is associated. "Use of public office" is avoided by the employee or official publicly disclosing the conflict and disqualifying himself/herself from official action in the matter, as provided in The Philadelphia Code Section 20-608.

**27. NORTHERN IRELAND.** Section 17-104(2)(b) of The Philadelphia Code prohibits the City from accepting bids from companies that do business in Northern Ireland, unless that business has implemented the fair employment principles embodied in the MacBride Principles. In furtherance of this ordinance, bidder makes the following certification and representations:

a. In accordance with Section 17-104 of the Philadelphia Code, bidder by execution of its bid certifies and represents that (i) bidder (including any parent company, subsidiary, exclusive distributor, or company affiliated with Bidder) does not have, and will not have at any time during the term of any Contract resulting from this bid (including any extensions thereof), any investments, licenses, franchises, management agreements or operations in Northern Ireland, and (ii) no product to be provided to the City under any resulting Contract will originate in Northern Ireland, unless Bidder has implemented the fair employment principles embodied in the MacBride Principles.

b. In the performance of any Contract resulting from this bid, Bidder agrees that it will not utilize any suppliers or subcontractors at any tier (i) who have (or whose parent subsidiary, exclusive distributor of company affiliate have) any investments, licenses, franchises, management agreements or operations in Northern Ireland or (ii) who will provide products originating in Northern Ireland unless said supplier or subcontractor has implemented the fair employment principles embodied in the MacBride Principles. Bidder further agrees to include provisions with this subparagraph (b), with appropriate adjustments for the identity of the parties, in all subcontracts and supply agreements which are entered into in connection with the performance of any resulting Contract.

## TERMS AND CONDITIONS OF BIDDING AND CONTRACT

c. Bidder agrees to cooperate with the City's Director of Finance in any manner which the said Director deems reasonable and necessary to carry out the Director's responsibilities under Section 17-104 of The Philadelphia Code. Bidder expressly understands and agrees that any false certification or representation in connection with this subparagraph (c) and/or any failure to comply with the provisions of this subparagraph (c) shall constitute a substantial breach of any Contract resulting from the Invitation and Bid entitling the City to all rights and remedies provided in this bid or otherwise available in law (including, but not limited to, Section 17-104 of the Philadelphia Code) or at equity. In addition, it is understood that false certification or representation is subject to prosecution under IS Pa.C.S. Section 4904.

**28. BUSINESS, CORPORATE AND SLAVERY ERA INSURANCE DISCLOSURE.** In accordance with Section 17-104 of The Philadelphia Code, the successful bidder, after award of the Contract, will complete an affidavit certifying and representing that the bidder (including any parent company, subsidiary, exclusive distributor or company affiliated with bidder) has searched any and all records of the bidder or any predecessor business entity regarding records of investments or profits from slavery or slaveholder insurance policies during the slavery era. The names of any slaves or slaveholders described in those records must be disclosed in the affidavit.

The bidder expressly understands and agrees that any false certification or representation in connection with this Paragraph and/or any failure to comply with the provisions of this Paragraph shall constitute a substantial breach of this Contract entitling the City to all rights and remedies provided in this Contract or otherwise available in law (including, but not limited to, Section 17-104 of The Philadelphia Code) or equity and the Contract will be deemed voidable. In addition, it is understood that false certification or representation is subject to prosecution under Title 18 Pa.C.S.A. Section 4904.

**29. MINIMUM WAGE & BENEFITS AND PREVAILING WAGE.**

a. If this bid is for the furnishing of services, except where services are incidental to the delivery of supplies or equipment, it is subject to Chapter 17-1300 of The Philadelphia Code and Mayoral Executive Order 03-14 which establish minimum benefits (health benefits and sick leave) and wages for employees. If Contractor and Contractor's first tier subcontractor(s) furnishing services to the City meet the definition of "Employer," as set forth in Philadelphia Code Sections 17-1302(5) and 17-1303, each shall comply with the minimum wage and benefits provisions established by these laws: from May 20, 2014 through December 31, 2014, the minimum wage shall be \$10.88 per hour; on January 1, 2015, the minimum wage shall be \$12.00 per hour, which wage amount shall be adjusted annually thereafter, by the CPI Multiplier.\* Contractor and its first tier subcontractor(s) shall notify each affected employee what wages are required to be paid. Accordingly, Contractor by submission of its Bid, acknowledges and certifies its compliance with Chapter 17-1300 and Executive Order 03-14 and shall also require its first tier subcontractors to likewise certify and acknowledge their compliance. Contractor shall promptly provide to the City, at its request, all documents and information verifying its compliance and

its first tier subcontractor(s)' compliance with these laws. Any request for a partial or total waiver of these requirements must be based on specific stipulated reasons elaborated in Philadelphia Code Section 17-1304 and should be directed to the attention of the Office of Labor Standards within the City's Managing Director's Office (MDO). Failure to comply with these provisions absent an approved waiver or partial waiver, is an event of default under the Contract and shall also subject Contractor and its first tier subcontractor(s) to the enforcement provisions in Philadelphia Code Section 17-1312.

b. The following services require the payment of prevailing wages and submission of certified payroll records under Philadelphia Code Section 17-107 for compensation that exceeds \$200,000.: landscaping; building care and maintenance; custodial/janitorial housekeeping; security guard service; demolition; snow removal; stucco; roof capping; furniture moving; locking systems and repairs; mechanical/HVAC maintenance and repairs; elevators, escalators, and electrical maintenance and repair, and subcontracts of all or a portion of such contracts. In addition, building service contracts for compensation exceeding \$100,000. are also subject to Section 17-107.

\*The CPI Multiplier shall be calculated by the Director of Finance for bids issued on or after January 1 of each year by dividing the most recently published Consumer Price Index for all Urban Consumers (CPI - U) All Items Index, Philadelphia, Pennsylvania, as of January of such year, by the most recently published CPI - U as of January 1, 2015.

**30. PROTECTION OF DISPLACED CONTRACT**

**WORKERS.** If this bid is for the furnishing of the following services, Security, Janitorial, Building Maintenance, Food and Beverage, Hotel or Non-Professional Health Care Services, then this bid is subject to the "Protection of Displaced Contract Workers" Law, Chapter 9-2300 of the Philadelphia Code. The successful Bidder, if it is a Successor Contractor is required, among other things, to retain certain service employees of the Predecessor Contractor for a ninety day period.

**31. EQUAL BENEFITS.** If this is a Service Contract, as defined in Philadelphia Code Section 17-1901(4), for an amount in excess of \$250,000, Contractor shall, for employees providing services under the Service Contract who reside in the City or employees who are non-residents subject to City wage tax under Philadelphia Code Section 19-502(b), extend the same employment benefits the Contractor extends to spouses of its employees to life partners of such employees. By submission of its Bid, Contractor so acknowledges and certifies its compliance with Chapter 17-1900 of the Philadelphia Code and shall notify its employees of the employment benefits available to life partners pursuant to Chapter 17-1900. Following the award of a contract subject to Chapter 17-1900 and prior to execution of the contract by the City, Contractor shall certify that its employees have received the required notification of the employment benefits available to life partners and that such employment benefits will actually be available, or that the Contractor does not provide employment benefits to the spouses of married employees.

Contractor's failure to comply with the provisions of Chapter 17-1900 or any discrimination or retaliation by the Contractor against any employee on account of having claimed a violation of Chapter 17-1900 shall be a material breach the Service Contract.

**TERMS AND CONDITIONS OF BIDDING AND CONTRACT**  
**SIGNING OF BIDS**

This contract consists of the Invitation and Bid (including exhibits and attachments), any addenda thereto issued by the City and the foregoing Terms and Conditions of Bidding and Contract (collectively, the "contract") and contains all the terms, conditions and requirements agreed upon by the parties. The terms "contract" and "agreement," whether capitalized or uncapitalized, shall have the foregoing meaning wherever they are used in the invitation and Bid, addenda thereto, the Terms and Conditions of Bidding and Contract, and this page. No other contract or agreement, oral or otherwise, regarding the subject matter of the contract shall be deemed to exist or to bind any party hereto or to vary any of the terms contained in the contract.

This contract may not be changed, amended or renewed, in whole or in part, except by a written amendment signed by the parties. No waiver by the City of any breach or noncompliance by the undersigned with any provision of this contract shall relieve the undersigned of any of its obligations or representations made under this contract.

This contract and all disputes arising under this contract shall be governed, construed and decided in accordance with the laws of the Commonwealth of Pennsylvania. The parties agree that any lawsuit, action, claim or legal proceeding involving, directly or indirectly, any matter arising out of or related to this contract or the relationship created or evidenced thereby, shall be brought exclusively in the United States District Court for the Eastern District of Pennsylvania or the Court of Common Pleas of Philadelphia County. It is the express intent of the parties that jurisdiction over any lawsuit, action, claim, or legal proceeding shall lie exclusively in either of these two forums. The parties further agree not to raise any objection to any lawsuit, action, claim or legal proceeding which is brought in either of these two forums and the parties expressly consent to the jurisdiction and venue of these two forums. The parties further agree that service of original process in any such lawsuit, action, claim or legal proceeding may be duly affected by mailing a copy thereof, by certified mail, postage prepaid to the addresses specified in the Invitation and Bid and/or this page.

**NOTE: ANY BID THAT IS NOT EXECUTED IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BELOW OR THAT DOES NOT INCLUDE STREET ADDRESS, CITY, STATE AND PHONE NUMBER, MAY, IN THE SOLE DISCRETION OF THE PROCUREMENT COMMISSIONER, BE REJECTED.**

**SIGNING OF BIDS:**

If bid is by an **INDIVIDUAL** or a **PARTNERSHIP**, or if the bid does not exceed \$32,000, date and sign the bid here, with the original signatures, in ink.

This \_\_\_\_\_ day of \_\_\_\_\_ 20

\_\_\_\_\_  
(Signature of Owner, Partner)

\_\_\_\_\_  
(Type or Print Name and Title)

\_\_\_\_\_  
(Business Name of Bidder)

\_\_\_\_\_  
(Address, including Zip Code)

\_\_\_\_\_  
(Telephone Number, including Area Code)

If the bid is a **CORPORATION**, date and sign the bid here with original signatures, in ink, by (a) President or Vice President of the Corporation AND (b) Secretary, Assistant Secretary, Treasurer or Assistant Treasurer of the Corporation; and (c) affix the seal of the Corporation. If the form is not signed by the President or a Vice President and Secretary, Assistant Secretary, Treasurer or Assistant Treasurer, attach a duly certified corporate resolution authorizing the person signing in place of such officers to execute this bid for the corporation.

This \_\_\_\_\_ day of \_\_\_\_\_ 20

**CORPORATE SEAL**

\_\_\_\_\_  
(Corporate or Business Name of Bidder)

\_\_\_\_\_  
(Address, including Zip Code)

\_\_\_\_\_  
(Telephone Number, including Area Code)

\_\_\_\_\_  
(Signature of President or Vice President)

\_\_\_\_\_  
(Signature of Secy., Asst. Secy., Treas. or Asst. Treas.)

\_\_\_\_\_  
(Type or Print Name and Title)

\_\_\_\_\_  
(Type or Print Name and Title)

**APPROVED AS TO FORM**

**CONTRACT EXECUTION**

\_\_\_\_\_  
(Assistant City Solicitor)

\_\_\_\_\_  
(Procurement Commissioner)