City of Mentor

Purchase an Aerial Mid-Mount Ladder Truck

OCTOBER 2023

Prepared under the supervision of Deputy Chief Ron Zak Date September 29, 2023 Fire Department

> Approved By: Fire Chief Robert Searles Fire Department Date September 29, 2023

CITY OF MENTOR OFFICIALS

ADMINISTRATION

Kenneth J. Filipiak, City Manager

David W. Malinowski, Finance Director

Joseph P. Szeman, Law Director

David A. Swiger, City Engineer

Matthew Schweikert, Director of Public Works

Kenn Kaminski, Director of Parks, Recreation and Public Facilities

Kevin Malecek, Director of Economic Development and International Trade

Kathy Mitchell, Planning Director

Kenneth K. Gunsch, Chief of Police

Robert Searles, Fire Chief

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Julie Schiavoni, Clerk of Council

THE CITY OF MENTOR 8500 CIVIC CENTER BOULEVARD MENTOR, OH 44060

SPECIFICATIONS AND BID FORMS FOR:

PURCHASE an Aerial Mid-Mount Ladder Truck

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PURCHASING OFFICE

DATE: Wednesday, November 1, 2023

11:00 a.m.

ALL BIDS SUBMITTED <u>MUST INCLUDE</u> THE REQUIRED BID DEPOSIT AND A PROPERLY EXECUTED BUSINESS ENTITY RESOLUTION (BER-1).

I. LEGAL NOTICE

The CITY OF MENTOR will receive sealed bids at the Purchasing Office, 8500 Civic Center Blvd., Mentor, Ohio 44060, until 11:00 a.m. (local time) on November 1, 2023 for:

PURCHASE AN AERIAL MID-MOUNT LADDER TRUCK

Bids must be in accordance with specifications advertised on the City of Mentor website: www.cityofmentor.com/category/rfp or RFP's will be available for pick-up at the Purchasing Office for the cost of printing. Bidders shall be responsible for checking for Addenda and obtaining any from the website.

Kenneth Filipiak, City Manager (cityofmentor.com/news/legalnotices)

NEWS HERALD:

PUBLISH DATES:

October 6, 2023 October 13, 2023

II. INSTRUCTIONS TO BIDDERS

The Instructions to Bidders governs, except where amended by the Specifications.

The Bidder is responsible for reading and understanding all items herein:

 Except as otherwise provided herein, the Instructions to Bidders, Proposal-Contract Form, and all specifications, drawings and other documents referred to herein shall be a part of the contract.

2. DEFINITIONS:

- A. The term "Bidder" or "Contractor" shall mean the corporation, partnership or individual proposing or under contract to furnish the material, labor, and/or equipment listed in the Specifications.
- B. The term "City" shall mean the City of Mentor, Ohio.
- C. "Calendar Day" shall mean every day shown on the calendar.
- "City Manager" shall mean the Mentor City Manager or his duly authorized representative.
- PROPOSAL: To be entitled to consideration, a proposal must be made in accordance with the following instructions:
 - A. <u>Preparation</u>: Each proposal shall be submitted on the forms furnished by the City. All signatures shall be clearly and legibly written in long hand. No oral, facsimile or telephonic proposal or modifications will be considered. Each proposal shall show the breakdown for each item as directed on the Proposal-Contract Form. All proposals shall be considered informal which contain items not specified in the Proposal-Contract Form.

Prices for material and equipment shall include transporting and delivery to any place designated on the City's purchase order, within the corporate limits of the City. In the event of a discrepancy between unit proposal prices and extension thereof, the unit proposal price shall govern.

B. Names of Bidders: Each proposal shall give the full business address of the Bidder(s) and be signed by them with their usual signature. Proposals by partnerships shall furnish the full names of all partners and shall be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and title of the person signing.

Proposals by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and title of the President, Secretary or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below the signature. A proposal by a person who affixes to their signature the word "President," "Secretary," "Agent" or other title without disclosing their principal may be held to be the proposal of the individual signing.

When requested by the City, satisfactory evidence of the authority of the officer or agent signing on behalf of a corporation or partnership shall be furnished.

 C. <u>Delivery</u>: The proposal shall be sealed in an envelope, addressed to:

> City of Mentor c/o Purchasing Department 8500 Civic Center Boulevard Mentor, Ohio 44060

and delivered to the office of the Purchasing Coordinator on the date set forth in the legal advertisement. The sealed envelope shall also bear the name of the Bidder, the general item(s) proposed, and the date the proposals are to be opened. Proposals will be received until the date and time specified in the legal advertisement. Proposals will be opened and read immediately thereafter, in 2nd Floor Conference Room, Mentor Municipal Center. Proposals received after the date and time specified will be returned unopened to the Bidder.

- D. <u>Proposal to Include All Work</u>: Each proposal shall include all equipment, material, supplies or services described in the Instructions to Bidders, Specifications, Proposal-Contract Form and all drawings.
- E. Withdrawal of Proposal: Permission will not be given to withdraw or modify any proposal after it has been deposited as provided above. Negligence on the part of a Bidder in preparing the proposal confers no right for the withdrawal of the proposal after it has been opened.
- F. Acceptance or Rejection of Proposal: The City reserves the right to accept any proposals within sixty (60) calendar days after the same are opened, as provided above. The City reserves the right to accept any proposals which, in its opinion, are deemed to be in the best interest of the City. The City reserves the right to reject any or all proposals.

In determining the award, each item may be considered separately, and separate contracts may be awarded on the various items, unless specified to the contrary in the Specifications.

- G. Proposal Bond or Check: Each proposal must be accompanied by a cashier's or certified check, an irrevocable letter of credit, or by a proposal bond, signed by a surety company authorized to do business in the State of Ohio, in the amount of five (5) percent of the proposal and made payable to the City of Mentor, as a guarantee that the contract will be honored in the event it is awarded to the Bidder, and as a guarantee that the Bidder to whom the contract is awarded will sign all documents necessary to formalize the contract, if any.
- H. Forfeiture of Check or Proposal Bond: If the Bidder to whom the contract is awarded shall fail to honor the contract, or fail to sign the documents necessary to formalize the contract, if any, the deposit accompanying the proposal shall thereupon be forfeited to the City for and as liquidated damages. The work may then be readvertised or awarded to the deemed second best Bidder as the City may determine.
- I. Quantities: The quantities of the work shown on the Specifications and Proposal-Contract Form are estimated by the City and will be used as the basis for comparison of the proposals only. The City reserves the right to decrease or increase any quantities and to eliminate any item(s) on the plans or proposal.
- J. <u>Informal Proposals</u>: Proposals may be rejected for the following reasons:
 - If the proposal is on a form other than that furnished by the City or if the form is altered or any part thereof detached.
 - If there are any unauthorized additions, conditional or alternate proposals, or other irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.
 - 3) If the Bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award. This does not exclude a proposal limiting the maximum gross amount of awards acceptable to any one Bidder at any one proposal letting, provided that the City will make any selection of awards.
 - 4) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum items.
- 4. A. Competency of Bidders: No proposal will be considered unless the Bidder submitting the same shall furnish evidence satisfactory to the City Manager that they have the necessary equipment, ability and financial resources to fulfill the conditions of the contract and Specifications. Previous experience and responsibility of the Bidders will be considered in awarding the contract. No contract will be awarded to any Bidder who is in arrears to the City upon debt or contract, or

- who is in default as surety or otherwise upon any obligation to the City.
- B. <u>Disqualification of Bidders</u>: Any of the following reasons may be considered as being sufficient for the disqualification of a Bidder and the rejection of their proposal or proposals.
 - More than one proposal for the same work from an individual, firm or corporation under the same or different names.
 - Evidence of collusion among Bidders. Participants in such collusion will receive no recognition as Bidders for any further work of the City until any such participant shall have been reinstated as a qualified Bidder.
 - 3) Proposal prices that obviously are unbalanced.
- WRITTEN AND ORAL EXPLANATIONS: Should a Bidder find discrepancies in, or omissions from, the drawings or Specifications, or should they be in doubt as to their meaning, they shall at once notify the City, which may send written instructions to all Bidders. The City will not be responsible for any oral instructions.
- 6. <u>ADDENDUM OR MODIFICATION</u>: Any addendum or modification issued during the time of bidding shall be covered in the proposal and in awarding a contract, such addendum or modification will become part thereof. In the event any such addendum or modification is issued by the City within 72 hours of the time set for the closing of proposals, excluding Saturdays, Sundays and legal holidays, the time for submitting proposals shall be extended one (1) week, with no further advertising of proposals.
- TAX EXEMPTIONS: The City is exempt from federal excise and transportation taxes and Ohio State sales tax. Prices quoted should not include either federal excise or Ohio State sales tax. Tax exemption certificates covering these taxes will be furnished upon request.

The transportation tax is not applicable on any purchase consigned to the City and no tax exemption certificate is required. If for any reason a contemplated purchase would not be tax exempt, this fact will be indicated in the Specifications, and such taxes may be included in the price or shown as a separate item in the proposal.

8. <u>DISCRIMINATION</u>: In hiring of employees for the performance of work under this contract or any subcontract, neither the Contractor, subcontractor, nor any person acting in their behalf shall by reason of race, creed, color, age, sex or handicap discriminate against any citizen of the State in the employment of any laborer or worker who is qualified and available to perform the work to which the employment relates.

Neither the Contractor, subcontractor, nor any person in their behalf shall in any manner discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, creed, color, age, sex or handicap.

- 9. <u>INSURANCE</u>: If the Specifications indicate insurance is required, then the Contractor shall obtain and pay for the following types of insurance:
 - (a) Commercial General Liability insurance with minimum limits of not less than \$1,000,000 combined single limit. Coverage is to include contractual liability, a per project general aggregate limit, primary and noncontributory other insurance provision, waiver of subrogation in favor of the City and additional insured status for the City including ongoing operations and products and completed operations. If such coverage is written on a Claims Made or Claims Made and Reported basis, (i) such coverage will have a retroactive date that is equal to or that precedes the date of the contract and be maintained for a minimum period of not less than three (3) years after the termination or expiration of the contract, (ii) may be replaced with other Claims Made or Claims Made and Reported coverage with a retroactive date that is equal to or that precedes the date of the contract and maintained for a minimum period of not less than three (3) years after the termination or expiration of the contract or (iii) may be cancelled after the termination of or expiration of the contract only if it is replaced by an extended reporting period with a duration of not less than three (3) years.
 - (b) Automobile Liability insurance providing coverage for all owned, non-owned and hired automobiles with minimum limits not less than \$1,000,000 combined single limit. Coverage shall include additional insured status for the City and a waiver of subrogation for the City.
 - (c) Worker's Compensation which meets all statutory minimum requirements

All policies must be written with insurance companies acceptable to the City. All policies are to provide the City with thirty (30) days advanced written notice of cancellation or non-renewal with the exception of cancellation for non-payment of premium which shall be ten (10) days. Contractor shall supply certificates of insurance evidencing the required coverage and shall furnish renewal certificates thirty (30) days prior to the renewal date. Failure of the City to request certificates does not relieve the Contractor from the obligation to maintain the required insurance.

10. <u>LIABILITY</u>: The Bidder shall defend, indemnify, and save harmless the City and its officers and agents from all claims, demands, payments, suits, actions, recoveries and judgments of every description, whether or not well founded by law, brought or recovered against it, by reason of any act or omission of said Bidder(s), their agents, subcontractors or employees, in the execution of the contract, or for the use of any patented inventions by said Bidder. A sum sufficient to cover aforesaid claims, including attorneys' fees, may be retained by the City from monies due or to become due to the

Bidder under contract, until such claims shall have been discharged.

- 11. ROYALTIES AND/OR LICENSE FEES: The Bidder shall pay all royalties and license fees. The Bidder herein agrees to assume and save the City, its officers and agents harmless from liability of any kind or nature whatsoever, arising out of the use by the City, its officers and agents of any item, appliance, apparatus or mechanism, material or service which may be furnished or installed by the Bidder under the terms of this contract, including patent or copyright infringement, and to defend the City from any and all such liabilities whether or not such claims are well founded by law.
- 12. <u>ASSIGNMENT OF CONTRACT</u>: The Bidder who is awarded a contract shall not assign, transfer, convey, sublet or otherwise dispose of said contract, or right, title or interest in or to the same, or any part thereof, without previous consent in writing from the City Manager, endorsed on or attached to the contract.
- 13. <u>CANCELLATION</u>: Should the material(s) supplied or delivered to the City under this contract fail at any time to meet the Specifications required by the contract, then in such event, the City may cancel this contract upon written notice to the Bidder.
- 14. <u>CONTROL OF WORK</u>: The City Manager, or his designated agent, will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions which may arise as to the interpretation of the plans and Specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor, and as to compensation.
- 15. CLAIMS FOR ADJUSTMENT AND DISPUTES: If, in in any case, the Contractor deems that additional compensation is due for work or material not clearly covered in the contract or not ordered by the City Manager as extra work, as defined herein, the Contractor shall notify the City Manager in writing of their intention to make claim for such additional compensation before they begin the work on which the claim is based. If such notification is not given and the City Manager is not afforded proper facilities by the Contractor for keeping strict account of actual costs as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor, and the fact that the City Manager has kept account of the cost aforesaid, shall not in any way be construed as proving or substantiating the validity of the claim. If the claim, after consideration by the City Manager, is found to be just, it will be paid as extra work in the amount as approved by the City Manager.
- 16. <u>DURATION OF CONTRACT</u>: The duration of the contract shall be for the period stated in the Specifications, and shall include all material, equipment and/or services ordered or delivered during the period. All prices quoted shall be for a definite fixed period unless otherwise noted in the Specifications.

- 17. <u>PURCHASES</u>: After a contract has been signed, it shall only become operative upon delivery to the Bidder a duly signed purchase order. The City shall only be obligated under the contract to the extent of such purchase order. The City shall not become liable for any claims in the event that the total quantity of material ordered or services performed under the contract should prove to be greater or less than the estimated amount in the Specifications.
- 18. <u>DELIVERY</u>: The Bidder agrees to make deliveries of supplies and materials within a reasonable period from the time purchase orders are received, which reasonable time is estimated to be thirty (30) days.

If deliveries are not made within such period, then the City may purchase such items in the open market; and if the prices paid by the City shall be greater than the contract price, the Bidder agrees to reimburse the City for any loss or losses that the City may thereby sustain.

Delivery time for vehicles and equipment may be extended beyond thirty (30) days, provided the Bidder has noted the delivery time in the appropriate space on the Proposal-Contract Form.

- 19. PAYMENT OF INVOICES: Invoices will be due and payable within thirty (30) days of receipt of the invoice by the City. All invoices should be mailed to the attention of the Accounts Payable Department. Payments may be made on a basis of estimated partial completion of work or delivery, and the City may withhold a percentage of each partial payment until completion of the contract. The City may withhold a percentage of the final estimate for a specified period as a guarantee. Such a procedure for partial payments must be provided for in the Specifications.
- 20. <u>CONTRACT BOND</u>: The successful Bidder will be required to furnish the approved bond for the faithful performance of the contract in the amount of one hundred percent (100%) of the contract price. Such bond shall be that of an approved surety company or personal bond upon which the sureties are persons not interested in the contract, or, if interested, collateral security shall be furnished, all of which is to be to the satisfaction of the Law Director, including sureties.

In lieu of a performance bond the City may elect to hold the Proposal Deposit Check, submitted with the proposal, until the contract has been fulfilled. Any deviation from the required one hundred percent (100%) figure will be noted in the Specifications.

21. GENERAL: Contractors shall furnish all labor, equipment, materials, services and supplies necessary to complete the proposed work. All work shall be performed according to all standards of good workmanship complete in every detail. Contractors shall coordinate their work with the work of others and, upon completion, remove tools, equipment, waste and debris and leave the site in "broom-clean" condition. Contractors shall warrant all equipment, materials, services and supplies with the normal and usual warranties.

- including, where applicable, warranties of merchantability and fitness for a particular purpose.
- 22. WAIVERABILITY: The City of Mentor reserves the right to accept any part of any proposal and reject all or parts of any and all proposals, and waive any informalities in the bidding procedure.
- PREVAILING WAGE: Contractors must comply with ORC Chapter 4115 when applicable. It is the Contractor's responsibility to contact the City's Prevailing Wage Coordinator to determine requirements.
- 24. TAXES: Contractor shall pay and/or withhold all sales, consumer, use, employment and other taxes (<u>including the City of Mentor 2% income tax</u>) paid or withheld by Contractor in accordance with the Laws and Regulations of the United States, State of Ohio and City of Mentor which are applicable during the performance of the work.

QUESTIONS: Call the Finance Department at (440) 974-5776.

III. BUSINESS ENTITY RESOLUTION

	, of	
(Name of Officer)	, of(Name of Busine	ss Entity)
an(State where incorporated/organized i	Business Entity hereby ce f applicable)	rtifies that the following is a true
and correct copy of a resolution duly on, (Month, Day)	adopted by the Board of Directors of (Year), to wit:	f, (Business Entity Name)
	(Name of Officer)	of this Business Entity, namely
,1	be and he/she hereby is authorized and	d directed to enter into any and all
(Title of Officer)		
contracts, bid guaranty and performa	ance bonds with THE CITY OF ME	NTOR, OHIO, for the purpose of
furnishing labor and/or materials as t	to	
	(Title of	Bid)
at such price and upon such terms	and conditions, including any amend	ments or modifications thereto, as
said	in his/h	er sole discretion shall deem best,
(Title of Officer)		
and that said actions shall be binding	g upon the Business Entity.	
"Resolved, further, that said	d(Name of Officer)	* be, and he/she further is
•	execute and deliver unto said <u>CII</u> etion he/she shall deem necessary to c	
	ve hereunto set my hand and af	
and I further certify that said resoluti	on is still in force and effect.	
	S	ECRETARY

SEAL

BER-1

^{*}Name must agree with signature on page Bidders Acceptance to Contract

VI. BID SUBJECT TO ACCEPTANCE AS CONTRACT

A.	BIDDER NAME (PRINT/TYPE):	
	BIDDER ADDRESS:	
	BIDDER PHONE/EMAIL:	
	STATE WHERE ORGANIZED, INCORPORATED, OR WHERE DOING BUSINESS AS:	DATE:
	BID	
Bids/6 agree condi	Contracts on behalf of the business eness to perform the services and/or de	gned having been authorized to enter into ntity, hereby on behalf of the business entity liver the goods pursuant to the terms and ed below, all of which, if the above business and conditions of the contract.
		Name (PRINT/TYPE)
		Title
	Date	Signature

IV. BID SUBJECT TO ACCEPTANCE AS CONTRACT (CONTINUED)

B. NOTICE OF AWARD

	responded to an invitation to bid to provide for the City of Mentor, Ohio, and whereas said
best bid, now, therefore, the City of	proved by the City Council as the lowest and Mentor awards the contract subject to final to be performed pursuant to the terms and uments (component parts):
 Instructions to Bidders Bond or Certified Check Specifications: General Require Proposal/Contract Form Other 	rements/Contractor's Responsibilities
	Purchasing
	Date
C. VENDOR AGREEMENT	
by all terms and conditions as identified between the paragraphs contained in the specific paragraphs under Specific Responsibilities, Proposal/Contract Form General Requirements/Contractor's Rother, shall control. And whereas, the contract, it will pay to	reviewed the above component parts of the
	Company Officer

D. ACCEPTANCE BY THE CITY OF MENTOR

THE FOREGOING CONTRACT IS HEREBY ACCEPTED AS TO ALL OF THE COMPONENT PARTS AND, IN SPECIFIC, TO ITEM(S) #

Item	n(s) #
Pursuant to Ordinance	Passed
By the Council of the City of Mentor, for	r the period:
FUNDS AVAILABLE:	
Finance Director	Date
City Manager	
APPROVED AS TO FORM:	
Law Director	

ESCROW WAIVER

In accordance with a certain Contract between the City of Mentor, (hereinafte
referred to as "the Owner") and (hereinafter referred to as "the Contractor"), it is mutually agreed by and between the parties hereto that no escrow account will be established pursuant to Sections 153.13, 153.14 and 153.63 of the Ohio Revised Code nor shall any interest be paid on any retainage.
CITY OF MENTOR
Kenneth J. Filipiak, City Manager
COMPANY
Company President

DELINQUENT PERSONAL PROPERTY STATEMENT

having been awarded a contract by the City of Mentor,
nereby affirms under oath, pursuant to Ohio Revised Code Section 5719.042, that at the time the bid was submitted, my company was / was not charged with delinquent personal property taxes on the General Tax List of Personal Property for Lake County, Ohio.
If such charge for delinquent personal property tax exists on the General Tax List of Personal Property for Lake County, Ohio, the amount of such due and unpaid delinquent taxes, including due and unpaid penalties and interest, shall be set forth below.
This statement shall be incorporated into the Contract made between the City of Mentor and and no payment shall be made with respect to any Contract unless such statement has been so incorporated as a part hereof.
Delinquent Personal Property Tax \$
Penalties \$
Interest \$
Signed: Company President
Subscribed in my presence, and sworn to before me, this day of, 2023.
Signed:
(Notary Public)

AFFIDAVIT

OF COMPLIANCE WITH OHIO REVISED CODE SECTION 3517.13

STATE OF OHIO COUNTY OF LAKE _____ being duly sworn deposes and states as follows: 1. I am duly authorized to make the statements contained herein on behalf of _____ ("the Contracting Party"). 2. The Contracting Party is a/an (select one): Individual, partnership, or other unincorporated business association (including without limitation, a professional association organized under Ohio Revised Code Chapter 1787), estate, or trust; Corporation organized and existing under the laws of the State of Labor organization. 3. I hereby affirm that the Contracting Party and each of the individuals specified in R.C. 3517.13(I) (with respect to non-corporate entities and labor organizations) or R.C. 3517.13(J) (with respect to corporations) are in full compliance with the political contribution limitations set forth in R.C. 3517.13(I) and (J), as applicable. 4. I understand that a false representation on this certification will incur penalties pursuant to 3517.992 (R)(3). Affiant further sayeth naught. By: _____ Title: SWORN TO BEFORE ME and subscribed in my presence this _____day of _____, 2023. **Notary Public** My commission expires: ______

Mentor Fire Department Bid Specification For Ladder Truck

A. GENERAL REQUIREMENTS

- **1. Intent:** The intent of these specifications is to describe an Aerial Mid-Mount Ladder Truck for use by the Fire Departments of the City of Mentor. Vehicle must be current year manufactured model. Only bids submitted for the complete vehicle will be accepted. The City reserves the right to accept or reject any or all bids or award or reject any combination of bid items.
- **2. Brand or Trade Name**: Brand names, where mentioned in these specifications, are not intended to be restrictive, but rather to indicate the level of quality required by the City. In any instance where a brand name is mentioned, it is assumed that the phrase "or equal" shall follow.
- **3. Manuals**: One (1) complete set of repair manuals on CD-ROM shall be provided with the vehicles at time of delivery.
- **4. Warranty:** Bidder shall submit written conditions and periods of warranty with the bid proposal.
- **5. Repairs:** Bidder must have complete repair facilities and parts inventory in Ohio.
- **6. O.S.H.A.:** Bidder shall comply with the provisions of the Occupational Safety and Health Act and Standards and Regulations issued thereunder and certify that all items conform to and comply with said standards and regulations.
- **7. Delivery:** The successful bidder will be required to deliver the equipment within the number of days as stated on the Proposal-Contract form. Failure to do so may result in a liquidated damage penalty to the vendor of \$20.00 per day beyond the stated delivery date.
- **8. Title**: For each vehicle awarded, the successful bidder will provide a Certificate of Title issued in the name of the City of Mentor.
- **9. Proposal (Bid) Bond**: In accordance with Section 3G of the Instructions to Bidders, each bidder is required to furnish a bid bond in the amount of 5% of the bid amount.
- **10. Contract Bond:** Section 20 of the Instructions to Bidders is hereby amended. A performance bond in the amount of 20% of the contract price will be required. B.

B. MINIMUM REQUIREMENTS

These specifications detail minimum requirements acceptable to the City of Mentor. Should the manufacturer's current specifications exceed these, they shall be considered minimum and shall be furnished, and equipment and components included in the bid shall be stipulated. Any additions, deletions or variations from the minimum must be stated in the space provided with the specifications. No entry in the "Bid Complies" column will be indicative of full compliance. Bidder shall stipulate components supplied in providing a complete unit.

Any and all parts not specifically mentioned in this specification, but which are required for proper and safe operation of the vehicle shall be furnished by the bidder and shall conform in strength, quality of material and workmanship to that provided by the automotive industry in general. All items not specifically mentioned but which are standard factory items shall be furnished.

PROPOSAL DRAWING

A general layout drawing depicting the apparatus layout and appearance shall be provided with the bid. The drawing shall consist of left side, right side, frontal and rear elevation views. Apparatus equipped with a fire pump, shall have a general layout view of the pump operators panel scaled the same as the elevation views. The drawing shall be a depiction of the actual apparatus proposed and not of a generic similar product.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
WIDING COURTS			
WIRING SCHEMATIC			
Wiring diagrams of the app	paratus shall be provided on a USB	I flash drive at the time	e of delivery.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
PRE-CONSTRUCTION C	<u>ONFERENCE</u>		
	t, and prior to construction of the ap of the manufacturer. A provision sh	•	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

INSPECTION TRIPS

An inspection trip shall be provided at the manufacturer's facility, prior to delivery of the completed apparatus. A provision shall be provided in the bid price for all travel, food and lodging. Bidder shall specify the number of personnel included.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
CUSTOM CHASSIS			
manufactured for heavy dintended load to be susta specifically designed and	ufactured in the factory of the biddluty service with adequate strengt ined and the type of service requimanufactured for the fire service aratus manufacturer shall not be a	h and capacity of all cored. The cab and chase industry. Apparatus ca	omponents for the ssis shall be
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
<u>WHEELBASE</u>			
The approximate wheelba	ase range shall be 245-265".		
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
DOUBLE FRAME RAILS	/TANDEM AXLES		
	e of a design type utilizing industrically designed for fire apparatus		g best practices.
adhesion. Each rail will b	I to remove scale, oil, and contame e primed with a high-performance o assembly, or the frame may be	e primer with proven ca	•
A lifetime warranty shall b	e provided, per manufacturer's w	ritten statement.	
		YES	NO

IF NO, EXPLAIN			
FRONT BUMPER CLIP			
The front clip of the subframe shall be designed with a built- chassis components. The front clip shall be painted the sa	•	_	ne and
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
TOW EYES (Front & Rear)			
There shall be four tow eyes, two front & two rear that are a in accordance with NFPA 1901. These tow eyes shall be ch corrosion resistance and painted to match the chassis.	-		
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
<u>STEERING</u>			
The steering system shall be a wheel-to-wheel steering systeering system will consist of a steering pump, miter box, of fan cooled system (set point 185 deg. F to 170 deg. F).			
The steering wheel will have an 18" diameter and multi-pos	ition tilt with telescop	ic adjustm	ent.
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
DRIVE LINE			
A SPICER heavy duty driveline shall be provided with a univ	versal joint assembly		
A high-capacity bearing package with larger needle rollers a seals and seal guard to keep grease in and allow a better p	_	g life doubl	e-lip
BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN			
<u>ENGINE</u>			
The apparatus shall be p torque @ 1000 R.P.M. Displacement: 14 Cylinders: 6	owered by a Cummins Diesel X 15	5 605 HP @ 1800 R.P.	.M., 1850 ft. lb.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
AIR COMPRESSOR			
The air compressor shal	be an engine driven Bendix or Wa	abco.	
IF NO, EXPLAIN	BIDDER COMPLIES	YES	NO
<u>STARTER</u>			
A 12-volt starter shall be	provided, controlled by a switch on	the left lower cab da	sh.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
EXHAUST SYSTEM			

The engine exhaust system shall be horizontal design constructed from heavy-duty truck components.

The engine exhaust system shall include the following components:

The exhaust system will be Stainless Steel from the turbo outlet to the inlet of the Aftertreatment Unit. Stainless steel piping will also be used from the Aftertreatment Unit to the diffuser outlet.

The single canister Aftertreatment Unit is a self-contained exhaust treatment system which includes: DPF (diesel particulate filter)

DEF Injector/Reactor

SCR (selective catalytic reducer)

This system will meet or exceed 2027 EPA emissions requirements.

BIDDER COMPLIES

The single canister Aftertreatment Unit shall be mounted in accordance with the specific engine manufacturer's specifications and current emission level requirements. The heat diffuser outlet shall be directed to the forward side of the rear wheels, exiting the right side with a heavy-duty heat diffuser.

Insulated jackets shall be provided on the exhaust system from the turbo outlet in the engine compartment to the Aftertreatment Unit. The jackets will cover all piping, including the bellows, between the engine and the Aftertreatment Unit per engine manufacturers requirements ensuring that the exhaust stream temperature remains elevated to ensure functionality with the Aftertreatment Unit.

YES ____

NO

IF NO, EXPLAIN			
ON-BOARD DIAGNOSTIC (OBD) SYSTEM			
The engine shall be equipped with an on-board diagnostic emissions related engine systems and components and alert to OBD system is designed to further enhance the engine and detection of emission related faults. The engine control un located throughout the engine and after-treatment system. Verification and sensor operation. There shall be warning lights to alert the operator of a malfunction. A data port shall be protothe purpose of code reading and troubleshooting. All commun J1939 data link.	he operator of an operating system it (ECU) will man The system shall so located in the day ided under the content of the content in the day ided under the content in the day in the content in the day in the content	y malfunctin by providenage smare monitor coash instrumentorer's side	ions. The ding early of sensors omponen nent pane e dash fo
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
ENGINE WARRANTY			
The engine shall have a five (5) year or 100,000-mile warranty Full Engine Coverage Plan (RVF) – which is their most comple includes EGR components installation in the chassis. There sh years. A one-hundred-dollar deductible shall apply for service	te engine coveraç nall be no deductil	ge plan, wh ble for the f	nich
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			

Engine A	IR IN	TAKE
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ENGINE BRAKE

The engine air intake and filter shall be designed in accordance with the engine manufacturer's recommendations. It shall be 99.9% tested per SAE J726.

An ember separator shall be provided in the engine air intake meeting, the requirements of NFPA 1901.

An Air Restriction warning light shall be provided and located on the cab dash.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
PRIMARY FUEL FILTE	ER/WATER SEPARATOR		
A Cummins approved t	fuel filter/water separator shall be rei	mote mounted to the o	chassis frame rai
A Cummins approved t	fuel filter will be mounted on the drive	er's side of the engine	}.
A 12V DC heater shall	be provided for the Fleetguard Fuel	Pro FH230 fuel filter/	water separator.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
TRANSMISSION			
The chassis shall be e	quipped with an Allison six (6) speed	l automatic transmissi	on.
The transmission shall the Allison TES-295 sp	come filled with an Allison approved pecification.	I Synthetic Transmissi	ion Fluid that me
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

The engine shall be equipped with a Jacobs compression engine brake. An "On/Off" switch and a control for "Low/High" shall be provided on the instrument panel within easy reach of the driver.

The ABS system will au	itomatically disengage the auxiliary	braking device when	required.	
A pump shift interlock c pumping operations.	ircuit shall be provided to prevent th	ne engine brake from	activating du	ring
The brake light shall ac	tivate when the engine brake is eng	jaged.		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
TRANSMISSION COO	<u>LER</u>			
The apparatus transmis aluminum internal comp	ssion shall be equipped with a Liquid conents.	d-To-Liquid remote m	ounted coole	r with
	BIDDER COMPLIES	YES	NO .	
IF NO, EXPLAIN				
TRANSMISSION SHIF	<u>TER</u>			
	shift selector shall be mounted to the ctly lit for nighttime operation.	ne right of the driver. T	he shift posi	ition
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
COOLING SYSTEM				
road and pumping oper	all be designed to keep the engine prations. The cooling system shall be ssion manufacturer's requirements,	designed and tested	to meet or e	

various rates without inducing stress to the adjoining core(s).

The cooling system shall be comprised of a charge air cooler to radiator serial flow package that

provides the maximum cooling capacity for the specified engine as well as serviceability. The main

The complete cooling system shall be mounted in a manner to isolate the system from vibration and stress. The individual cores shall be mounted in a manner to allow expansion and contraction at

components shall include a surge tank, a charge air cooler, bolted to the top of the radiator to maximize cooling, recirculation shields, a shroud, a fan, and required tubing. All components shall consist of an individually sealed system.

	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
RADIATOR				
The radiator and com cooling system stand	plete cooling system will meet or exce ards.	eed NFPA and engin	e manufact	turer
The radiator shall be located at the bottom	constructed completely of aluminum vof the radiator.	vith welded side tanl	κs. A drain μ	oort will be
	nall be filled with a 50/50 mix. The coowater to prevent the coolant from free			
Silicone hoses shall b	e provided for all engine coolant lines	3.		
	ps shall be spring loaded stainless stops to prevent leaks. Shields or baffles ide of the radiator.			
low coolant probe and check engine light. The	nall be equipped with an aluminum sud sight glass to monitor the coolant levole surge tank shall be equipped with a ure requirements, and system design	vel. Low coolant sha a dual seal cap that i	II be alarme	ed with the
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
CHARGE AIR COOL	<u>ER</u>			
_	shall be of a crossflow design and co charge air cooler shall be bolted to the	-	-	
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

FAN

The engine cooling system shall incorporate a heavy-duty composite fan. It shall provide the highest cooling efficiently while producing the lowest amount of noise. This robust yet light-weight fan results in less wear and stress on motors and bearings.

A shroud and recirculation shield system shall be used to ensure air that has passed through the radiator is not drawn through again.

The fan tip to radiator core clearance shall be kept at a minimal distance to increase the efficiency of the fan and reduce fan blast noise.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
FAN CLUTCH				
•	rovided that shall allow the cooling fausly activated when the truck is place		en needed. Th	ıe fan
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
FUEL TANK				
tank shall be construc	equipped with a 65-gallon fuel tank sted of 12-gauge steel. The fuel tank ntain engine manufacturer's recomme	shall be certified to r	meet FMVSS	
There shall be two tar AA fuel lines will be pr	k baffles. ovided as recommended by the engir	nes manufacturer.		
The bottom of the fuel	tank shall contain a drain plug.			
The fuel tank shall be driver's side of the true	equipped with a 2-1/4" filler neck ass ck.	embly with a .5"75"	vent located o	on the
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

DIESEL EXHAUST FLUID TANK

The exhaust system shall include a molded cross linked polyethylene tank. The tank shall have a capacity of 4.5 to 5 usable gallons and shall be mounted on the left side of the chassis frame.

The DEF tank fill neck shall accept only a 19mm dispensing nozzle versus the standard 22mm diesel fuel dispensing nozzle to prevent cross contamination. The DEF tank cap shall be blue in color to further prevent cross contamination.

An Air-To-Liquid aluminum fuel cooler shall be installed in the engines fuel return line.

BIDDER COMPLIES

YES_____ NO

IF NO, EXPLAIN

ALTERNATOR

A 430 ampere Delco-Remy alternator shall be provided. The alternator shall be serpentine belt driven.

BIDDER COMPLIES

YES_____ NO

IF NO, EXPLAIN

LOW VOLTAGE ALARM

A low voltage alarm, audible and visual, shall be provided.

BIDDER COMPLIES

YES_____ NO

IF NO, EXPLAIN

BATTERIES

The battery system shall be a single system consisting of (4-6), 12-volt Group 31 HD batteries, cranking performance of 950 CCA each with total of 3800 amp minimum.

There shall be a minimum of 185-minute reserve capacity.

The batteries shall include a one-year warranty which shall be accepted nationwide.

The batteries shall be installed in a vented 304 stainless steel battery box with a removable aluminum cover to protect the batteries from road dirt and moisture. The battery cover shall be secured with four "T" handle rubber hold downs to provide easy access for maintenance and inspection. Stainless steel hardware will be used for installation. The batteries are to be placed on

dri-deck and secured with a fiberglass hold down. The batteries shall be wired directly to starter motor and alternator.

The battery cables shall be 3/0 gauge. Battery cable terminals shall be soldering dipped, color-coded and labeled on heat shrink tubing with a color-coded rubber boot protecting the terminals from corrosion.

There shall be a 350-ampere fuse protecting the pump primer and a 250-ampere fuse protecting the electric cab tilt pump and other options as required.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
BATTERY JUMPER TE	<u>RMINAL</u>		
•	two studs) of battery jumper termine have plastic color-coded covers.	•	•
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
BATTERY CHARGER			
cab. The unit shall include	note panel 40-amp battery charge de a built-in touch screen, IP32 rat hall be wired to the 120V shoreline	ted, and configurable fo	
IF NO, EXPLAIN	BIDDER COMPLIES	YES	NO
120V SHORELINE INLE	ET & AUTO EJECT		
• •	equipped with a 20 amp 120V sho Il source. After ejection, a 180 deg	•	
	BIDDER COMPLIES	YES	NO
IF NO. EXPLAIN			

120-VOLT OUTLETS WIRED TO SHORELINE INLET

Eight (8) 120-volt outlets shall be provided and wired to the shoreline inlet. The location of the outlets shall be determined during the pre-construction conference.

	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
FRONT AXLE				
A front steer axle with a	capacity of 24,000 pound shall be	provided.		
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
SUSPENSION (FRONT)			
The front suspension sh	all be of a design type utilizing ind	lustry accepted engin	neering best	practices
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
STEER ASSIST				
The steer assist provide	s driver assistance when turning t	he vehicle left or righ	t while trave	eling.
IF NO, EXPLAIN	BIDDER COMPLIES		_ NO	
FRONT TIRES				
tubeless type with a GA	dyear 425/65R22.5, load range L, WR of 23,000 pounds. The rating ing. Wheels shall be disc type, hub	shall be achieved wit	th the Fire S	Service
BIDDER COMPLIES	YESN	o		
IF NO. FXPI AIN				

REAR AXLE

The rear axle shall have a capacity of 52,000 lbs. The axles shall be furnished with oil seals. A locking inter-axle differential shall be provided between the two rear axles. An activation switch shall be provided on the driver's dash.

	BIDDER COMPLIES	YES	. NO	
IF NO, EXPLAIN				
INTER-AXLE DIFFER	ENTIAL LOCK			
A locking inter-axle disshall be provided on the	fferential shall be provided between t ne drivers dash.	he two rear axles. Ar	n activation s	witch
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
SUSPENSION (REAR				
system. The air suspe without air if the need dampen load forces, re restrict lateral movement	hall be an air ride suspension. This so nsion bags shall have internal rubber arises. Heavy-duty shock absorbers beduce tire hops, and improve stopping ent of the differentials and to reduce lead to maintain even, balanced loads.	r stops giving the abi shall be provided, inl ng. Torque rods shall bushing and tire wea	lity to operate board mounte be incorporat r. Dual height	ed, to ted to t control
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
REAR TIRES				
Rear tires shall be God	odyear 12R22.5, load range H, with a	a GAWR up to 54,000	opounds.	
	BIDDER COMPLIES	YES	NO	
IE NO EYPLAIN				

TIRE PRESSURE MONITOR

A Real Wheels LED tire pressure sensor shall be provided for each wheel. The pressure sensor shall indicate if a particular tire is not properly inflated.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
<u>WHEELS</u>				
The front and rear whe	els will be painted steel.			
The wheels shall be pr	operly balanced without wheel weigh	nts.		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
HUB COVERS (Front	<u>& Rear)</u>			
Polished stainless-stee painted steel.	el hub covers shall be provided for th	e front and rear axle	if wheels are	€
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN MUD FLAPS				
Hard rubber mud flaps	shall be installed behind the front ar	nd rear wheels.		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
<u>BRAKES</u>				
Both front and rear bra caliper, and quick-char	kes shall be air Disc Brakes with ver nge pads.	nted rotors, lightweigh	nt hubs, twin	-piston
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

AIR BRAKE SYSTEM

The vehicle shall be equipped with air-operated brakes. The system shall meet or exceed the design and performance requirements of current FMVSS-121 and test requirements of current NFPA 1901 standards.

Each wheel shall have a separate brake chamber. A dual treadle valve shall split the braking power between the front and rear systems.

All main brake lines shall be color-coded nylon type protected in high temperature rated split plastic loom. The brake hoses from frame to axle shall have spring guards on both ends to prevent wear and crimping as they move with the suspension. All fittings for brake system plumbing shall be brass.

An AD-IP air dryer shall be provided.

The air system shall be provided with a rapid build-up feature, designed to meet current NFPA 1901 requirements.

Six (6) supply tanks shall be provided. One air reservoir shall serve as a wet tank and a minimum of one tank shall be supplied for each the front and rear axles. A Schrader fill valve shall be mounted in the front of the driver's step well.

A spring actuated air release emergency/parking brake shall be provided on the rear axle. One (1) parking brake control shall be provided and located on the engine hood next to the transmission shifter within easy reach of the driver.

A Meritor WABCO IR-2 Inversion Relay Valve, supplied by both the Primary and Secondary air systems, shall be used to activate the parking brake and to provide parking brake modulation in the event of a primary air system failure.

Accessories plumbed from the air system shall go through a pressure protection valve and to a manifold so that if accessories fail they shall not interfere with the air brake system.

The vehicle shall be equipped with air operated WABCO air brake release valve located in the cab within an accessible reach to the driver.

The air brake system shall have all the air tank drain valves located in a customer specified location on the apparatus.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

AIR INLET

An air system inlet/fill connection shall be provided. The inlet shall be connected to the air brake to allow constant air feed. The location of the inlet shall be on the left-hand side of the driver's step well.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
AIR COMPRESSOR				
compressor shall ensuthe unit. A pressure sw	mpressor shall be provided and insing that the air brake system is properlitch shall regulate operation and shape the proper pressure.	erly pressurized for in	nmediate res	ponse of
and shall automatically	auto drain which shall be installed y purge water from the air discharg wl every time the compressor cycle	e output. The water	shall be ejec	•
The compressor shall	pe wired to the 120V shoreline conn	ection.		
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
AUTO PUMP TIMER				
	all be provided to reduce wear on the to one hour running followed by a	-	•	e timer
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				

AIR BRAKING ABS SYSTEM

A Wabco ABS system shall be provided to improve vehicle stability and control by reducing wheel lock-up during braking. This braking system shall be fitted to axles and all electrical connections shall be environmentally sealed from water and weather and be vibration resistant.

The system shall constantly monitor wheel behavior during braking. Sensors on each wheel transmit wheel speed data to an electronic processor, which shall sense approaching wheel lock and instantly modulate brake pressure up to 5 times per second to prevent wheel lock-up. Each wheel shall be individually controlled. To improve field performance, the system shall be equipped with a dual circuit design. The system circuits shall be configured in a diagonal pattern. Should a malfunction occur, that circuit shall revert to normal braking action. A warning light at the driver's instrument panel shall indicate malfunction to the operator.

The system shall consist of a sensor clip, sensor, electronic control unit and solenoid control valve. The sensor clip shall hold the sensor in close proximity to the tooth wheel. An inductive sensor consisting of a permanent magnet with a round pole pin and coil shall produce an alternating current with a frequency proportional to wheel speed. The unit shall be sealed, corrosion-resistant and protected from electromagnetic interference. The electronic control unit shall monitor the speed of each wheel sensor and a microcomputer shall evaluate wheel slip in milliseconds.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
COMPRESSION FITTIN	IGS ON AIR SYSTEM			
All air line fittings installe fittings.	ed on the chassis shall be compre	ssion style		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

CAB CUSTOM STYLE

The cab shall be a full tilt 8-person custom, cab over engine style, with the driver and officer positions ahead of the engine and front axle. There shall be four (4) side entry doors. The cab shall be specifically designed and manufactured for the fire service industry. Apparatus cabs that are not manufactured by the apparatus manufacturer shall not be acceptable.

The cab shall be designed by manufacturer's Engineering to meet the unique, Heavy-duty construction specifications. All aspects of the cab will be quality checked by manufacturer's personnel.

The cab shall be of a totally enclosed full tilt design, with the interior area completely open to improve visibility and verbal communication between the occupants. Roof mounted air conditioning is not desired.

The cab shall be designed with high strength Aluminum extrusions and Aluminum plate.

	PIDDED COMPLIES	VEC	MO
	BIDDER COMPLIES	YES	
IF NO, EXPLAIN			
CAB SUB FRAME			
	nted to a sub-frame and shall be isola be completely independent of the apprint o		•
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
CAB DIMENSIONS			
The back of the cab is Cab Width (excluding Cab Length (from C/L To front of cab (excluding To rear of cab, approxi	of front axle) ing bumper) approximately 70"	compartment.	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
ROOF DESIGN			
The cab shall be of a fl height dimensions:	at roof design with side drip rails and	I shall satisfy the foll	owing minimum
Cab Dimension Front 54-59" Rear 54-59"	s Interior		
Cab Dimension Front 65" Rear 65"	s Exterior		
	BIDDER COMPLIES	YES	NO

ull depth radiused wheel	well liners shall be)
YES	NO	
YES	NO	
approved safety glass.		
YES	NO	
YES	NO	
	ull depth radiused wheel YES Ill be insulated from the hinterior sound levels sha YES approved safety glass. YES d transparent polycarbor, recessed in a molded for the hinterior sound levels.	ull depth radiused wheel well liners shall be YES NO Ill be insulated from the heat and cold, and interior sound levels shall not exceed 80 descriptions approved safety glass. YES NO

CAB STRUCTURAL INTEGRITY

The cab of the apparatus shall be designed and so attached to the vehicle as to eliminate, to the greatest possible extent, the risk of injury to the occupants in the event of an accident.

The apparatus cab shall be tested to specific load and impact tests with regard to the protection of occupants of a commercial vehicle.

A test shall be conducted to evaluate the frontal impact strength of the apparatus cab to conform to the test J2420 and the "United Nations Regulation 29, Annex 3, paragraph 4, (Test A). A second test shall be conducted to evaluate the roof strength of the apparatus cab to conform to the Society Of Automotive Engineers (SAE) SAE J2422/SAE J2420 and "United Nations Regulation 29, Annex 3, paragraph 5, (Test B) and SAE J2420. The evaluation shall consist of the requirements imposed by ECE Regulation 29, Paragraph 5.

The test shall be conducted by a certified independent third-party testing institution.

BIDDER COMPLIES

A letter stating successful completion of the above test on the brand of cab being supplied shall be included in the bid. There shall be "no exception" to this requirement.

YES

NO

IF NO, EXPLAIN			
SEAT BELT TESTING			
The seat belt anchorage system shall be tested to meet FMVSS section 4.2. Testing shall be conducted by an independent third-			
A copy of the certification letter shall be supplied with the bid doo	cuments.		
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
CAB LOCKDOWN LATCHES			
Cab lockdown latches shall be provided to prevent the cab from Once the cab tilt switch is engaged the cab latches will release t	•	•	٦.
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			

CAB TILT SYSTEM

An electrically powered hydraulic cab tilt system shall be provided, exposing the engine and accessories for fluid checks and service work. The system shall be interlocked to only operate when the parking brake is set.

The lift system shall be comprised of two (2) hydraulic lift cylinders, an electrically driven hydraulic pump, and a control switch. A mechanical locking system will be provided to ensure the cab remains in the raised position in the event of a hydraulic failure. Additionally, each of the hydraulic lift cylinders shall incorporate a check valve, and velocity fuses that will activate should a sudden drop in pressure be detected. The cab tilt controls shall be interlocked to the parking brake to ensure the cab will not move, unless the parking brake is set. The cab tilt controls will consist of a momentary raise/lower switch and a two-position cab safety lock switch.

YES

NO

BIDDER COMPLIES

IF NO, EXPLAIN				_
MANUAL CAB LIFT				
•	operated hydraulic pump for tilti all be located under the left cor	•	• •	ıld
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				_

CAB DOORS

The cab doorframes shall be constructed from aluminum sheet metal skin and shall be equipped with dual weather seals. The outside cab door window opening shall be framed by a black anodized aluminum trim, to provide a clean appearance. The cab doors shall be equipped with heavy-duty door latching hardware, which complies with FMVSS 206. The door latch mechanism shall utilize control cable linkage for positive operation. A rubber coated nylon web doorstop shall be provided.

The doors shall be lap type with a 10 gauge full-length stainless steel flange and 3/8" diameter hinge pin and shall be fully adjustable.

All openings in the cab shall be grommeted or equipped with rubber boots to seal the cab from extraneous noise and moisture.

The cab doors shall be designed to satisfy the following minimum opening and step area dimensions: Door Opening:

Front	
Rear	

min 36.5" x max 73" min 36.5" x max 73"

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
CAB STEPS				
Grip strut material shall	be installed on the stepping surface).		
intermediate step shall	nall be provided, mid-way between the slightly inset to provide for safer in ed on the stepping surface.	• • •		
All steps shall be cover surfaces.	ed with material that meets or excee	eds the NFPA require	ments for step	ping
	itional step under each cab door to a structed of aluminum with a grip stru		and exit of the	cab.
	minate each interior cab step. These d the cab door is opened.	lights shall illuminat	e whenever the	е
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
POWER WINDOWS				
,	shall have power windows. Each do ave master control over all windows.		• •	nd the
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

SIDE WINDOWS

Fixed position side window shall be provided on each side of the cab between the forward cab area and the crew cab area. The side windows shall be held in place by an extruded rubber molding with a chrome plated decorative locking bead.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
REAR CAB WINDOV	<u>ws</u>			
Two fixed windows sh	nall be provided in the back wall of the	cab.		
	BIDDER COMPLIES	YES	NO .	
IF NO, EXPLAIN				
WINDSHIELD WIPE	RS			
master control works	II be black anodized finish two speed e the wiper, washer and intermittent wip city. Washer fill is located just inside of	e features. Washer b	•	• •
Standard wiper replace	cements (J-Hook style) are recommen	ded.		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
<u>MIRRORS</u>				
` ,	yle mirrors, with chrome finish, will be r and lower mirror shall be 4-way remo			cab
	BIDDER COMPLIES	YES	NO .	
IF NO, EXPLAIN				
ADDITIONAL MIRRO	<u>DRS</u>			
	shall be provided and mounted for the pg aerial ladder set-up.	purpose of viewing a	eas where th	nere is
	BIDDER COMPLIES	YES	NO .	
IF NO. EXPLAIN				

FRONT GRILLE

	all be equipped with a raised polished into the cooling system and engeptable.		
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
<u>BUMPER</u>			
	gh double rib polished stainless-stee The sides shall be finished with dian		er provided at the
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
AIR HORNS			
Two (2) air horns shall bumper or within the fro	be provided. The air horns shall be i ont bumper.	nstalled behind perfo	orations in the front
	BIDDER COMPLIES	YES	
IF NO, EXPLAIN			
AIR HORNS WIRED T	O STEERING WHEEL		
	wired through the steering wheel but I to switch between functions.	ton. A selector switch	n shall be provided
A momentary switch fo	r the air horns shall be provided on t	he officers side dash	ı .
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
EI ECTDONIC SIDEN			

One (1) Whelen 295HFSA7 electronic siren shall be installed at the cab instrument panel complete with noise canceling removable microphone. The remote-control head shall be flush mounted in a location specified by the fire department.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
SIREN SPEAKER			
One (1) 100 watt weat	herproof siren speaker shall be prov	ided and wired to the	e electronic siren.
	BIDDER COMPLIES	YES	_ NO
IF NO, EXPLAIN			
FEDERAL Q2B SIRE	<u>N</u>		
	ral Q2B-NN siren installed. The sire d and shall include a brake.	n shall be securely m	nounted and activated
	shall be wired through the steering went panel to switch between function		tor switch shall be
	echanical siren shall be provided on or the mechanical siren shall be prov		side dash.
A brake switch for the driver's and officer's p	mechanical siren shall be provided in osition.	n the lower command	d console for both the
	BIDDER COMPLIES	YES	
IF NO, EXPLAIN			
CAB EXTERIOR LIGI	HTING		
	eflectors shall meet or exceed Federa on Association requirements.	al Motor Vehicle Safe	ety Standards and
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

HEADLIGHTS

The front low and high beam headlights shall be FIRETECH model FT-4X6 LED, rectangular shaped, quad style installed in custom rectangular shaped stainless-steel housings on the front of the cab.

An additional pair of rectangular shaped stainless-steel housings shall be installed on the front of the cab above the headlight housings. Each housing shall accommodate forward-facing warning lights.

The interior components of the headlights shall have a chrome finish.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
FRONT TURN SIGNALS				
	ngular amber turn signal lights mounted on the side of the cab.	on or next to t	he headlight	
	BIDDER COMPLIES	YES	_ NO _	
IF NO, EXPLAIN				
ICC/MARKER LIGHTS				
Five (5) ICC, LED marker to meet D.O.T. requiremen	lights shall be integrated in the brow lighnts.	nt mounted on	the front of the	e cab
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

EXTERIOR CAB HANDRAILS

There shall be four (4) 24" long, handrails provided and installed at each cab entrance. The handrails shall be constructed of type 304 stainless steel 1.25"diameter tubing with bright finish and knurled gripping surface. Mounting flanges shall be constructed from 7 gauge, .180 thick, stainless sheet. Each grab rail shall have 90 degree returns to flanges. The ends of grab rail shall pass through the flanges and be welded to form one structural unit. The handrails shall be mounted using 1.25" SS Hex bolts, with a barrier rubber gasket at each flange.

Sufficient space shall allow for a gloved hand to firmly grip the rail.

of coats, turnout gear, e	etc.		
	BIDDER COMPLIES	YES	_ NO
IF NO, EXPLAIN			
HANDRAILS, FRONT	OF CAB		
There shall be a pair of windshields.	knurled stainless steel handrails or	n the front face of the	cab, below the
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
INTERIOR CAB HAND	RAILS		
	oated grab handles provided and maken in the base of t	nounted on the interio	or of the cab, one
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
CAB DOOR HANDRAI	<u>LS</u>		
	ubber coated grab handles provide ow the windowsill. The handrails sh		
	(2) 1.25" diameter knurled stainles side of each rear crew door, just ab ng.		-
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
ACCESS to CREW SE	<u>AT</u>		

There shall be a coat hook installed on the upper portion of the all exterior cab handrails for hanging

this is a transverse com	partment.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
DRIVER'S SIDE EXTER	RIOR CAB COMPARTMENT			
	constructed of .125 aluminum plat partment shall be approximately 3			side
•	nave a hinged door that is hinged a atch single-point "D"-ring door clos			
The compartment shall t	pe operated by an individual switch	n and illuminated with	(1) LED light.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
OFFICER'S SIDE CAB	COMPARTMENT			
	constructed of .125 aluminum plate compartment shall be approxima tion)			
•	nave a hinged door that is hinged a atch single-point "D"-ring door clos			
The compartment shall be	pe operated by an individual switch	n and illuminated with	(1) LED light.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
DIAMOND PLATE, CAE	3 ROOF			
	the cab and roof section of the cab cted of .125" aluminum embossed		d plate overlay.	The
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

The exterior cab compartment shall be open to the crew cab seat compartment from both sides as

CAB INTERIOR

The metal surfaces of the cab interior shall be coated and sealed with a urethane modified, mar resistant paint. The textured coating shall provide paramount durability and wear resistance against foreign objects and normal wear and tear.

The front and rear headliners, as well as the rear cab wall, shall be finished in Gray-Black Durawear covered padded panels.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
INTERIOR DOOR PAN	NELS			
The interior of the cab door, from the door wir	entry doors shall have a brushed st ndowsill down.	tainless steel scuff plate	e, contour	ed to the
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
CAB FLOOR COVERI	<u>NG</u>			
cosmetically pleasing s	hall be covered with a thick, gray restepping surface throughout the calce against foreign objects as well as	o. The floor covering s	hall provid	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

ENGINE ENCLOSURE

An integral, formed aluminum and composite engine enclosure shall be provided. The engine enclosure shall be contoured and blended in an aesthetically pleasing manner with the interior dash and flooring of the cab. The enclosure shall be kept as low as possible, to maximize space and increase crew comfort.

The noise insulation keeps the dBA level within NFPA 1901.

BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN			
ENGINE ENCLOSURE COVERING			
The top of the engine enclosure shall be covered with a he coating. The textured coating shall provide paramount deforeign objects and normal wear and tear as well as so rubberized cab floor covering shall extend up the lower exterion sound deadening and heat resistance.	urability and wea	ar resistance and insulatior	against n. The
There shall be two (2) cup holders and a storage slot measuring recessed into the top of the center console extension between	•		10"D
BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN			
COMPUTER TRAY			
There shall be a slide-out tray in front of the officer's seat for a	a laptop computer	or other use.	
BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			
CHASSIS WIRING			
All electrical connectors and main connectors throughout th corrosion.	ne chassis shall b	pe treated to	prevent
BIDDER COMPLIES	YES	NO _	

MASTER ELECTRICAL PANEL

There shall be a 12-volt direct current single starting electrical system providing power to all components for the cab and chassis.

IF NO, EXPLAIN _____

The breaker panel shall include up to 22 ground switched relays with circuit breaker protection. An integrated electrical sub-panel shall be provided and interfaced to the body and chassis through an engineered wire harness system.

Twelve (12) 20-ampere relays and one (1) 70-ampere relay shall be provided for cab light bar and other electrical items. If the option for a mechanical siren has been selected two (2) additional relays shall be provided.

Up to two (2) additional relay boards with circuit breaker protection shall be provided for additional loads as required. Each board shall contain four (4) relays. The relay boards shall be configured to trip with input from switch of positive-negative or load manager by moving the connector on the board (no tools required).

All wiring color coded and labeled as to its function. Wiring which is cross link shall have high temperature insulation.

All breakers will be clearly marked.

All internal splices shall be ultrasonically welded connections and all internal wiring shall be high temperature GXL type wire that is protected by wiring duct wherever possible.

All electrical distribution centers will be located in accordance with manufacturer's best practices to be easily accessible for simplified maintenance and troubleshooting. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length.

Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload.

General protection circuit breakers will be a combination of automatic and manual reset breakers. When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating in accordance with NFPA standard.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

INSTRUMENT PANEL

The main dash shroud, which covers the area directly in front of the driver from the doorpost to the engine hood, shall be constructed of vacuum formed ABS material with scorpion texture.

The gauges shall be of the highest quality next Generation Instrumentation System (NGI) with builtin self-diagnostics and red warning lights to alert the driver of any problems. All gauges and controls

be visible to the drive	r through the steering wheel.	Il main gauges and warning ligh	is snaii
	BIDDER COMPLIES	YES NO	
IF NO, EXPLAIN			
MASTER BATTERY	<u>& IGNITION SWITCH</u>		
The vehicle shall be e	equipped with a keyless ignition switcl	n.	
	BIDDER COMPLIES	YES NO	
IF NO, EXPLAIN			
DIESEL PARTICULA	TE FILTER CONTROLS		
•) controls for the diesel particulate filte be to inhibit engine regeneration. The el. BIDDER COMPLIES		
IF NO, EXPLAIN			
INSTRUMENTATION	I & CONTROLS		
INSTRUMENTATION Instrumentation on da Tachometer/hour n malfunction indicators	I & CONTROLS ash panel in front of the driver: neter with high exhaust system regen	eration temperature, and instrum	

Indicators and warning lights in front of the driver:

Parking brake engaged

Primary air pressure Secondary air pressure Low air with buzzer

Antilock brake warning

Check transmission

Transmission temperature

Upper power indicator

Seat belt

Engine temperature

Low oil indicator

Low voltage indicator

Air filter restriction light

Low coolant indicator

High idle indicator

Power on indicator

Check engine

Stop engine

Check engine MIL lamp

DPF indicator

High exhaust temperature

Wait to start

Other indicator and warning lights (if applicable):

Differential locked

PTO (s) engaged

Auto-slip response

Retarder engaged

Retarder temperature

ESC indicator

Jacks Out

Jacks Down

Controls located on main dash panel in front of the driver:

Master power disconnect with ignition switch

Engine start switch

Headlight switch

Windshield wiper/washer switch

Differential lock switch (if applicable)

Dimmer switch for backlighting

Controls included in steering column:

Horn button

Turn signal switch

Hi-beam low-beam switch

4-way flasher switch

	BIDDER COMPLIES	YES	_ NO
IF NO, EXPLAIN			
CENTER CONTROL	CONSOLE		
of 1/8" smooth alumin The console shall hav feature surfaces on ea and accessibility. The removable 1/8" smoot	conomically designed center control form and shall be mounted on the ender a durable coating to match the coach side that are contoured to face a switches and other customer spects aluminum panels with a black wroth quick release latch. The lid shall less and serviceability.	ngine hood between the olor of the engine hood the driver and the official items so inkle finish. The constitution	ne driver and officer. It covering and shall therefor easy viewing thall be mounted in the shall have an
 Transmission s Pump shift conf Remote mirror Illuminated rock emergency, and 	trol with OK TO PUMP and PUMP	ENGAGED lights	n, siren brake, master
	e console conveniently accessible t control with a guard to prevent acc		ficer (center):
 Illuminated rock reachable to the eliminate the no 	e console conveniently accessible to ker switches to control customer space officer and do not allow for composed for foot switches. Surface to as space permits. 12V power poing	pecified components the romise of the driver's vertees siren head, rad	view, and
	BIDDER COMPLIES	YES	NO

IF NO, EXPLAIN_____

OVERHEAD CONTROL CONSOLE

An ergonomically designed overhead console shall be provided above the driver and officer, running the full width of the cab. The overhead console shall be constructed from 1/8" aluminum plate and shall be painted with a durable finish to match the inside of the cab. There shall be removable plates to house switches and other electrical items Specified by the customer at the construction meeting.

Directly above the driver there shall be two (2) panels with no cutouts, unless otherwise specified by the customer.

There shall be a panel located to the right of the driver that shall be designated for defroster, heat, and air conditioning controls (if specified).

The center overhead panel shall be designated for up to seven (7) door ajar indicators. Upon releasing the apparatus parking brake, one or more of these lights shall automatically illuminate (flash) when any of the following conditions occur that may cause damage if the apparatus is moved: cab or compartment door is open; ladder or equipment rack is not stowed; stabilizer system deployed; any other device has not been properly stowed.

There shall be a panel to the left of the officer as well as two (2) directly above the officer. These panels shall have no cutouts, unless otherwise specified by the customer.

YES

NO

BIDDER COMPLIES

IF NO, EXPLAIN			
ENGINE WARNING SYSTEM			
An engine warning system shall be provided to monitor engine high engine temperature and low coolant level. Warning indicated) light with audible buzzer activation and a CHECK ENGIN configurations may also include a fluid warning light.)	ation shall include	a STOP El	NGINE
There shall be a master information light bar with 24 lights loca panel that covers up to 24 functions. These are defined under			
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			

PUMP SHIFT MODULE

lockup shall be provi	ded to hold the transmission in direct o	drive for pump opera	tion.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
PUMP INTERLOCK				
tracked during pump	is in pump gear the odometer shall be ing operations. The user can use this to verify the unit is in pump gear.		-	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
DO NOT MOVE APF	PARATUS INDICATOR LIGHT and AL	.ARM		
brake is released and	nstalled in the cab near the driver. The d any cab or body door is open or any may cause damage.	•		_
A "Do Not Move App	aratus" alarm shall be installed in the i	nterior of the cab.		
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
MAPBOOK SLOT				
A map book slot shal cab.	I be installed on exterior of the breake	r panel located on th	e officer's s	ide of the
	BIDDER COMPLIES	YES	NO	
IF NO. EXPLAIN				

A pump shift module with indicating lights shall be located within easy reach of the driver. A gear

PROGRAMMABLE LOAD MANAGER

Load manager shall have the ability to sequence loads on and off. The load manager will be designed in accordance with manufacturer's best practices.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
HIGH IDLE			
The switch shall be insta	"high idle" switch on the dash tha alled at the cab instrument panel f rational only when the parking bra	or activation/deactivati	on. The "high idle"
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
CAB ACCESSORY FUS	SE PANEL		
shall consist of six (6) ba	cated underneath the rear facing sattery hot and six (6) ignition switch and total output of 50-amps. The and total output, radio chargers, ectrical components.	th circuits. Each circuit fuse panel shall be ca	shall be capable on spable of powering
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

POWER & GROUND STUDS, OVERHEAD COMMAND CONSOLE

There shall be a set of four (4) threaded power studs provided in the cab's overhead Command Console for future installation of two-way radios.

The studs shall be wired as follows:

- One (1) 12-volt 60-amp, direct to the battery ignition off.
- One (1) 12-volt 30-amp switched battery first position on ignition switch.
- One (1) 12-volt 30-amp ignition power second position on ignition switch.

•	One (1) 12-volt 125-amp ground.			
	BIDDER COMPLIES	YES	_ NO _	
IF NO	, EXPLAIN			
POWE	ER & GROUND STUDS, LOWER COMMAND CONSOL	<u>E</u>		
	shall be a set three of (3) threaded power studs provided ble for future installation of two-way radios. The studs sha			
•	One (1) 12-volt 60-amp, direct to the battery One (1) 12-volt 30-amp controlled by the ignition switch One (1) 12-volt 125-amp ground			
	BIDDER COMPLIES	YES	NO _	
IF NO	, EXPLAIN			
There accom	shall be a minimum of four (4) threaded power studs promodate the future installation of two-way radios. uds shall be wired as follows:	ovided under the	officer's seat t	0
•	One (1) 12-volt 40-amp controlled by the battery switch One (1) 12-volt 60-amp controlled by the ignition switch One (1) 12-volt 60-amp, direct to the battery One (1) 12-volt 100-amp ground			
	BIDDER COMPLIES	YES	NO _	
IF NO	, EXPLAIN			
<u>VEHIC</u>	CLE DATA RECORDER			
	cle data recorder as required by the 2009 edition of NFP. be sampled at the rate of 1 second per 48 hours, and 1 m			data elc
Free s	oftware is available to allow the fire department to collec	t the data as nee	eded.	
	BIDDER COMPLIES	YES	_ NO .	

IF NO, EXPLAIN			
AUXILIARY POWER POIN	<u>VT</u>		
A 12-volt 20-ampere auxilia	ary lighter socket type plug-ir	shall be provided in the ca	ab.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
DUAL USB POWER POIN	<u>IT</u>		
A 12-volt dual port USB po	wer point shall be provided in	n the cab.	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
DUAL POWER POINT, US	B-USBC		
A12-volt dual port USB-US	BC power point shall be prov	vided in the cab.	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
LIGHTING CAB INTERIO	<u>3</u>		
round ceiling mounted con light lens. One light shall b	ovided inside the front of the online on the online of the online of the ordination red/clear LED dome or located over each the office or switch located in each cab	e lights with a push button er and driver's position. Th	on/off switch in the
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

LIGHTING CREW CAB INTERIOR

Interior lighting shall be provided inside the crew cab for passenger safety. Two (2) Whelen 6" round ceiling mounted combination red/clear LED dome lights with a push button on/off switch in the light

doorjamb.				
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
DOOR LIGHTS				
	to model 50*03Z*R LED light shall be wir cab doors. The lights shall be wir			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
HEAVY DUTY HEATE	R/DEFROSTER/AIR CONDITIONER	<u> </u>		
	num 78,000 cool BTU and 65,000 hea ne cover. To achieve maximum cooli	•		
The defroster/heater sl	hall be a minimum of 35,000 BTU.			
include two fan motors	e roof mounted and have a minimum a. Airflow of the condenser shall be a at full rated capacity at an idle with no	minimum 2250 CFM	l. (This roof-m	
A Cabin air filter shall a	also be provided.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
HEATER/DEFROSTE	R/AIR CONDITIONING CONTROLS	1		
controls shall be illuming such a way that the dri	ir conditioning shall be located within nated for easy locating in dark condit iver will not be forced to turn away fro if all heater/defroster/air conditioning	tions. The controls shom the road to make	nall be locate climate conti	d in rol

lens shall be provided. The lights shall also activate from the open-door switch located in each cab

shall be achieved through these controls.

	BIDDER COMPLIES	YES	. NO
IF NO, EXPLAIN			
FLOORBOARD HEATII	NG DUCT		
There shall be ductwork floor area.	to the floor of the cab, facing forward	ard to provide heat fo	or the front of cab
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
DEFROSTER DIFFUSE	<u>:R</u>		
fitted and shall attach to the windshields. Air flow	of durable ABS plastic ductwork sy the cab's overhead defroster unit of up to 280 cfm is balanced and ability in all types of weather.	to provide temperatu directed across the e	re controlled air to entire windshield for
	BIDDER COMPLIES	YES	
IF NO, EXPLAIN			
TOOL MOUNTING PLA	<u>TE</u>		
use in mounting of equal shall be spaced up 1". finished appearance. The	smooth aluminum plate installed of ipment. The plate shall measure the mounting plate shall feature to plate shall be coated with the sath screws for easy replacement.	approximately 25" wo	vide x 19.5" long and e front and rear for a
	BIDDER COMPLIES	YES	
IF NO, EXPLAIN			

AUXILIARY DEFROSTER FAN

There shall be two (2) 12-volt fan mounted under the upper command console, one (1) inboard of console position 2, directed at the driver's side windshield and the other one (1) will be inboard of console position 5 directed at the officer's side of the windshield. The fan shall be activated by a 3-position toggle switch located at the base of the fan. The switch positions shall be High, Low and Off.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
DRIVER'S SEAT			
point shoulder harness	shall be provided for the driver. T with lap belt. The seat shall ha ty Low Seam Durawear Plus mate	ave fore/aft adjus	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
HELMET STORAGE			
In accordance with NFPA	1901, 2016 edition, section 14.1.7.	4.1	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
OFFICER'S SEAT			
be equipped with a red 3-	a SCBA cavity and auto-pivot-and- point shoulder harness with lap b seat shall be upholstered with h	elt and an automa	tic retractor built into
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
UNDER SEAT STORAGE	COMPARTMENT		
	corage area under the officer's sea		
	BIDDER COMPLIES	YES	NO

IF NO, EXPLAIN _____

HELMET STORAGE

In accordance with NF	FPA 1901, 2016 edition, section 14.1.7	7.4.1		
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
CREW SEAT - DRIVE	ER'S SIDE, REAR FACING			
cavity and auto-pivot- shoulder harness with	ase seat shall be installed behind the and-return padded headrest. The se lap belt and an automatic retractor beavy duty Low Seam Durawear Plus r	eat shall be equippe uilt into the seat ass	ed with a red 3-	-poir
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
HELMET STORAGE				
In accordance with NF	FPA 1901, 2016 edition, section 14.1.7	7.4.1		
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
CREW SEAT - OFFIC	CER'S SIDE, REAR FACING			
cavity and auto-pivot- shoulder harness with	ase seat shall be installed behind the and-return padded headrest. The seal lap belt and an automatic retractor beavy duty Low Seam Durawear Plus recommendations.	eat shall be equippe uilt into the seat ass	ed with a red 3-	-poir
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
HELMET STORAGE				
In accordance with NF	FPA 1901, 2016 edition, section 14.1.7	7.4.1		
	BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN				
EMS CABINET, FORW	ARD FACING			
cab. The cabinet dimer shall come complete wi	t constructed of .125 aluminum plat nsions shall be approximately 46" w th interior access. Strip lighting sha pack wall of the cab, mounted on th tts.	ride x 18" deep x 38" tall be provided in the a	all. The ca	binet e cabinet
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
INTERIOR COMPARTI	MENT OPENING			
•	come complete with a single interion tic buckles to cover the opening.	or access opening, and	d 1" nylon b	olack
IF NO, EXPLAIN	BIDDER COMPLIES	YES		
ADJUSTABLE SHELVE	<u> </u>			
` ,	djustable shelves provided and ins 88 aluminum plate and have two 1. shelf for support.	•		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
SEAT UPHOLSTERY C	COLOR			
The cab seat upholstery	shall be gray in color.			
	BIDDER COMPLIES	YES	NO	
IF NO. FXPI AIN				

SCBA BRACKETS

Each SCBA seat in the cab shall feature an IMMI SmartDock hands-free self-contained breathing apparatus (SCBA) storage bracket within the seat back.

The bracket shall consist of a main vertical support bracket, lower guide plate with valve retaining tabs, top claw assembly with wings, and an integral height adjustment knob. The top claw shall be adjustable for different diameters of SCBA cylinders. The head height shall be adjustable with the integrated adjustment knob for different heights of SCBA cylinders.

The bracket shall feature single-motion SCBA insertion and hands-free release when the fire fighter stands up to exit the seat. In the event of a collision, the top claws lock from inertial forces for a secure hold.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
SEAT BELT WARNING	SYSTEM			
shall be supplied with shall determine when t that the seat is prope	ystem shall be provided, and shall a sensor that, in conjunction with he seat belt was fastened and if the rly occupied. An audible and visu It is not fastened in the proper sequ	the display module loe e seat is occupied. An al alarm shall be act	ocated on to	he dash, epresent
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
CREW SEAT COMPAR	RTMENT			
The front of the compa	e provided under the forward-facing rtment shall be open and enclosed lastic buckles. Compartment dimer	with black nylon webb	ing. The we	bbing
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

A Jensen HD AM/FM/WB/CD Bluetooth stereo shall be provided with four speakers.

HD STEREO

BIDDER COMPLIES	YES	NO		
IF NO, EXPLAIN				
FIRE PUMP HALE QMAX-200				
Fire pump shall be midship mounted. The fire pump shall centrifugal type, carefully designed in accordance with		ion single stage		
The pump shall be of fine grain alloy cast iron, with a m	inimum tensile strength	of 30,000 PSI.		
The pump body shall be horizontally split on a single plane, casing type with removable lower casing for easy removal of the entire impeller assembly including wear rings and bearings from beneath the pump without disturbing piping or the mounting of the pump in the chassis.				
All moving parts in contact with water shall be of high-quality bronze or stainless steel.				
Easily replaceable bronze labyrinth wear rings shall be	provided.			
The rated capacity of the fire pump shall be 2000 gallons per minute in accordance with NFPA# 1901.				
The pump shaft shall be rigidly supported by three bearings for a minimum deflection. One high lead bronze sleeve bearing to be located immediately adjacent to the impeller (on side opposite the drive unit). The sleeve bearing shall be lubricated by a force fed, automatic lubrication system, pressure balanced to exclude foreign material. The remaining bearings shall be heavy duty type, deep groove ball bearings in the gear box and they shall be splash lubricated.				
There shall be a pump panel heater installed				
BIDDER COMPLIES	YES	NO		

PUMP TRANSFER CASE

The drive unit shall be designed of ample capacity for lubricating reserve and to maintain the proper operating temperature. Pump drive unit shall be of sufficient size to withstand up to 16,000 lbs. ft. torque of the engine in both road and pump operating conditions.

IF NO, EXPLAIN _____

The gearbox drive shafts shall be heat treated chrome nickel steel input and output shafts shall be at least 2.35" in diameter, on both the input and output shafts. They shall withstand the full torque of the engine in both road and pump operating conditions.

The engagement of the pump transmission shall be of such design so as to permit transfer of power from road to pump operation only after vehicle is completely stopped. The pump shift shall be air actuated from the cab and have both a green "Pump Engaged" light, and a green "O.K.-To-Pump" light. A third green light shall be provided on the pump operator's panel for "Throttle Ready".

Fire pump shall be equipped with an emergency shift cable assembly.

The pump drive unit shall be cast and completely manufactured and tested at the pump manufacturer's factory.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
HEAT PANS				
Removable heat pans	will be installed under the fire pump			
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
PUMP SEAL				
The pump shaft shall h of a mechanical seal t	ave only one packing gland located	d on the inlet side of the	he pump. It s	hall be
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
PUMP ANODE				
	be provided and installed in the pur 1) in the suction side and one (1) in			des
	BIDDER COMPLIES	YES	NO _	
IE NO EYPLAIN				

PUMP TEST & CERTIFICATION

The pump shall be te with NFPA 1901.	sted and certified by a third-party inc	dependent testing ac	gency, in acc	ordance
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
AUXILIARY COOLER				
,	all be furnished to provide additional classifier from the pump is to be piped to be cooled as required.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
PUMP CONNECTION	_	and larger shall be b	court duty of	oinloon
steel pipe.	ge lines (except pump manifolds) 1" a	and larger shall be n	eavy-duty st	airiiess-
for servicing, a flexible valve or a separate dr	assis flexing may damage or loosen perconnection shall be furnished. All line ain provided at the connection. All indigree fitting in order to drain below the tubing.	es shall be drained b ividual drain lines fo	y a master or r discharges	Irain shall be
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
TANK TO PUMP				
to pump line shall run	be connected to the intake side of the from a bottom sump into the 3" valve. short 3" flexible rubber hose coupling	To prevent damage	due to chas	sis
	BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN			
VALVES			
optimizing stainless stee directional flow while income and specially designed	n Akron Brass Heavy-Duty swin ball, and dual polymer seats. porating a self-locking ball feature flow optimizing stainless steel other internal waterway parts. The	The valve shall life using an automation ball. The valve sh	be capable of dua c friction lock designall not require th
The valve shall be controll panel.	ed by an Innovative Controls pus	h/pull handle located	at the operator's
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
TANK FILL			
A <u>1"</u> tank fill shall be provious operator's panel.	ded, using a quarter turn full flow	ball valve controlled	from the pump
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
PRESSURE GOVERNOR			
Control Module (ECM) mo (regulating) governor (PSC Programmable presets for	ed with a Class1 Pressure Gover unted on the engine. The Govern 6) utilizing the engine's data for o RPM and Pressure settings shall stem voltage, engine oil pressure e provided.	or will operate as a p ptimal resolution and I be easily configurab	ressure sensor response. le using the menu
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

INTAKE RELIEF

BIDDER COMPLIES	YES	NO	
There shall be a Task Force Tips A1831 intake relief valve installed the surplus water shall be discharged away from the pump operation pipe thread. System is field adjustable.			

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
6" PUMP INLET				
	port with 6" NST male threads sha through the side pump panels and ne-plated cap.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
TFT BALL INTAKE VA	<u>ALVE</u>			
	Γ ball intake valve provided with the side shall be specified by the fire dep	• •	ide shall b	e 6" NST
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
INLET ADAPTER				
` ,	os #AH3ST-NX 6" NST female x 5" S nall be provided for the above inlet.	Storz 30-degree adapte	er with #A()1ST 5"

2.5" LEFT SIDE INLET

IF NO, EXPLAIN __

A 2.5" gated inlet valve shall be provided on the left side pump panel. The valve shall be supplied with chrome plate female swivel, plug, chain, and removable strainer. The valve shall attach directly to the suction side of the pump with the valve body behind the pump panel.

YES NO

BIDDER COMPLIES

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
THREAD TERMINATION	<u>ON</u>			
The above shall termin	nate with National Standard Threads			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
6" PUMP INLET				
	port with 6" NST male threads shal through the side pump panels and ne-plated cap.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
TFT BALL INTAKE VA	ALVE			
	T ball intake valve provided with the side shall be specified by the fire dep		side shall be	6" NST
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
INLET ADAPTER				
	os #AH3ST-NX 6" NST female x 5" S nall be provided for the above inlet.	Storz 30-degree adap	ter with #A01	ST 5"
	BIDDER COMPLIES	YES	NO	

2.5" RIGHT SIDE INLET

A 2.5" gated inlet valve shall be provided on the right-side pump panel. The valve shall be supplied with chrome plate female swivel, plug, chain, and removable strainer. The valve shall attach directly to the suction side of the pump with the valve body behind the pump panel.

The above shall terminate	with National Standard Threads.		
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
2.5" PRESSURE GAUGE	<u>s</u>		
resistant lens, and a highly gauge shall be 2.5" in dian fully-filled with a synthetic mechanisms, prevent lens gauge shall also include a contain a low temperature	s will have pressure gauges. These polished stainless steel bezel preser with a white face, and black mixture to dampen shock and vib condensation and ensure proper KEM-X Socket Saver diaphragm instrument oil that fills and protect from 0 to 400 psi with enhanced	ressure gauge shall be cenhanced lettering. To pration, lubricate the interestion from – 40°F in the stem to elimina cts the socket and bou	provided. The he gauge shall b ternal to +160°F. The te freeze-up and rdon tube. The
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
ALL (4) 2 ½" DISCHARG	E TERMINATIONS		
There will be four (4) 2 1/2"	discharges, two (2) on each side	of the pump.	
Three (3) discharge valves chained.	shall be equipped with a 30° elb	ow termination that is	capped and
One (1) discharge with be and chain.	equipped with NST female x 5" S	Storz adapter with #A0 ⁻	1ST 5" Storz cap
The above shall terminate	with National Standard Threads.		
	BIDDER COMPLIES	YES	NO
IE NO EVDI AIN			

CROSSLAY	S
----------	---

Three (3) cross lay hose I	peds shall be supplied as follows:			
One crosslay with 2.5" pip	oing and 2.5" swivel with the capa	icity of 200' of 2.5" ho	se.	
Two crosslays with 2" pip	ing and 1.5" swivel with the capac	city of 200' of 1.75" ho	se each.	
	ipped with 2" valves. The valves spanel with electric actuators.	shall be the "drop-out	" style and	
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
VALVE ACTUATOR				
	lled by an Akron model 9323 elec be displayed on the LCD screen		•	
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
2.5" PRESSURE GAUGE	<u> </u>			
polished stainless steel be with a white face, and bla mixture to dampen shock condensation and ensure KEM-X Socket Saver diap instrument oil that fills and	C Series glass-filled nylon case, a ezel pressure gauge shall be provided enhanced lettering. The gauge and vibration, lubricate the internity proper operation from — 40°F to obtragm in the stem to eliminate from protects the socket and bourdornanced black markings on a white	vided. The gauge sha e shall be fully-filled w nal mechanisms, prev +160°F. The gauge sh reeze-up and contain n tube. The gauge sha	Il be 2.5" in di ith a synthetic ent lens nall also includ a low tempera all display a ra	iameter c de a ature ange
The above shall terminate	e with National Standard Threads			
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

CROSSLAY COVER

A black webbing cross lay cover shall be provided to enclose the top and sides of the cross lays
capable of being secured at the top and sides.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
COVER FASTENERS				
The crosslay cover sha	all be secured with metal snaps.			
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
MASTER PUMP DRA	<u>IN</u>			
•	in valve shall be provided and plumbe assembly shall be clearly marked as	•	ns on the main	
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
DRAIN VALVES LIFT	UP STYLE			
	quarter turn style drain valves shal pecified. Each drain shall be clearly of discharge.			
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

WATERWAY VALVE AND ACTUATOR

The waterway valve shall be an electric valve. The valve shall be located at the operator's panel. The actuator shall be connected to both a flow sensor and a pressure sensor. The actuator shall display pressure, flow, and valve position on a full color LDC display.

Manual override capability will be provided.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
WATERWAY DRAIN V	<u>ALVE</u>			
An Akron 1.5" waterwa	y drain valve shall be provided and o	controlled with a pus	h/pull handle.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
PUMP AND GAUGE P	<u>ANELS</u>			
separate panels for eas	ides shall be easily removable. The se of maintenance. There shall be o de pump panel. This door shall have	ne (1) removable ac	cess door as large	e as
	I gauges shall be located at the left sanel shall be laid out in a user-friend		and properly	
	have the corresponding discharge g operator to view the discharge pres	. •	• •	
Pump shift emergency operational.	override cable and handle will be af	fixed to the pump pa	nel and be fully	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
PANEL FINISH				
The panels shall be concaused during normal u	nstructed of brushed stainless steel use.	for maximum protect	ion against abras	ion
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

ESCUTCHEON PLATES

The pump panel shall be equipped with color-coded removable escutcheon plates around the suction and discharge valves.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
COLOR CODING			
Each discharge valve c color-coding shall be (a	ontrol, outlet, and corresponding lin s applicable):	e gauge shall be colo	r-coded. The
The fire pump will be pa	ainted red;		
The plumbing shall not	be painted. All fittings, pipe, and val	lves shall remain in th	eir natural finish.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
PUMP PANEL LIGHTII	NG, LED		
	panel controls and gauges shall be strolled at the pump panel.	illuminated by a full w	vidth white TecNiq
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
PUMP PANEL LIGHTII	NG, LED		
The officer's side pump controlled at the pump	panel shall be illuminated by a full panel.	width white TecNiq E4	4 LED light strip,
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

PUMP PANEL GAUGES AND CONTROLS

The following gauges and controls shall be provided at the pump panel:

- Two (2) certified laboratory test gauge outlets.
- Pump primer control.
- Master drain control and additional drains as needed.
- Tank-fill and pump cooler valve controls.
- Tank to pump valve control.
- Pump capacity rating plate.
- All discharge controls.
- Two (2) master pump gauges.
- Gauges on all 1-1/2" and larger discharge lines.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
PRIMING SYSTEM			
AirPrime System. All we	be a compressed air powered, hig tted metallic parts of the priming s priming system shall have a five-y	system are to be of bras	
	BIDDER COMPLIES	YES N	NO
IF NO, EXPLAIN			
(1) PRIMER BUTTON -	MAIN SUCTION		
A single panel mounted pump.	control will activate the priming pu	ump and open the primi	ng valve to the
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
COMPRESSION FITTIN	IGS ON AIR SYSTEM		
Compression style fitting	gs shall be provided on air lines w	ithin the pump module.	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

AIR OUTLET

system shall tie into the ac	provided adjacent to the pump ccessory tank of the brake syste let line to prevent the brake syst	em and include an 85-pe		е
	BIDDER COMPLIES	YES	NO	_
IF NO, EXPLAIN				_
AIR HORN BUTTON				
A push button switch shall	be provided on pump operators	s panel to activate the a	air horns.	
	BIDDER COMPLIES	YES	NO	_
IF NO, EXPLAIN				_
4" MASTER GAUGES				
polished stainless steel be shall be 4" in diameter with filled with a synthetic mixtor prevent lens condensation also include a KEM-X Soc temperature instrument oi	Series glass-filled nylon case, ezel pump pressure and vacuum ha white face, and black enhanure to dampen shock and vibration and ensure proper operation froket Saver diaphragm in the ster I that fills and protects the socker of 400 psi with enhanced black reserved.	n gauges shall be providuced lettering. The gaughion, lubricate the internation –40°F to +160°F. The to eliminate freeze-upet and bourdon tube. The	ded. The gauges ges shall be fully-al mechanisms, he gauges shall be and contain a lone gauges shall	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				_
WATER TANK GAUGE				
viewing and ultra-bright LE	water level gauge shall be prov ED's for high visibility even in dir ucer, and capable of indicating i	rect sunlight. Water leve	el sensing shall b	

BIDDER COMPLIES

IF NO, EXPLAIN _____

YES____ NO

WATER TANK

The tank shall be constructed of polypropylene material. This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from ½ to 1" as required. Internal baffles are generally 3/8" in thickness.

The tank shall be of a specific configuration and shall be designed to be completely independent of the body and compartments. Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity.

The top of the booster tank shall be fitted with removable lifting assembly designed to facilitate tank removal.

All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions or baffles shall be designed to provide maximum water flow. All swash partitions shall interlock with one another and completely fused to each other as well as to the walls of the tank. All partitions and spacing shall comply with NFPA 1901.

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" PT3™ polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. The fill tower shall be blue in color indicating that it is a water-only fill tower. The tower shall have a 1/4" thick removable polypropylene screen and a PT3™ polypropylene hinged cover. The capacity of the tank shall be engraved on the top of the fill tower lid. Inside the fill tower there shall be a combination vent/overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of 4" that is designed to run through the tank and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 so as to not interfere with rear tire traction.

The tank cover shall be constructed of 1/2" thick PT3™ polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary. The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity. Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart. These dowels shall extend through the covers and will assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowels shall accommodate the necessary lifting hardware.

There shall be one (1) sump constructed of a minimum of 1/2" polypropylene. On all tanks that require a front suction, a 3" schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the tank to the sump location. The sump shall have a minimum 3" N.P.T. threaded outlet on the bottom for a drain plug per NFPA. This shall be used as a combination clean-out and drain. All tanks shall have an anti-swirl plate located approximately 3" above the inside floor.

There shall be two (2) standard tank outlets: one for the tank-to-pump suction line, which shall be sized to provide adequate water flow to the pump; and, one for tank fill line, which shall be sized according to the NFPA minimum size chart for booster tanks. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and be capable of withstanding sustained fill rates of up to 1000 G.P.M. All auxiliary outlets and inlets must meet all NFPA guidelines in effect at the time of manufacture.

The tank shall be completely removable without disturbing or dismantling the apparatus structure.

The tank shall be delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight. Engineering estimates for capacity calculations shall not be permitted for capacity certification. A center of gravity and weight calculation for both empty and full conditions shall be required with each tank.

The tank shall have a limited Lifetime warranty that provides warranty service for the life of the fire apparatus in which the tank is installed.

YES

NO

The water tank shall have a capacity of at least 300 U.S. gallons and constructed of

BIDDER COMPLIES

IF NO, EXPLAIN			
AERIAL BODY SUB-	FRAME		
gusseted legs, extend provide additional stru rear platform shall be assembly will be attact	tted with a sub-frame system consisting down and out from the chassis for ctural support to the running boards constructed of the same material to hed to the chassis frame by a seriest eptable. NO EXCEPTIONS	rame rails on each side and side compartme support the rear com	de. This system will nts. A heavy-duty partments. The entire
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

APPARATUS BODY

All side metal, compartments and compartment floors shall be stainless steel. The body shall be assembled with heavy-duty stainless steel channel sills with bracing for extreme rigidity and mounted on a steel subframe.

The compartment body, pump housing and the engine compartment shall be separate modules (segmented body design) that are not to be fastened together in any manner in order to provide "flex joints" to alleviate stress and cracking of body compartments and running boards.

Each compartment shall be properly vented with louvers.

The Body will have at least 280sq inches of compartment space. Roll up doors or hinged doors offered in painted or non-painted satin finish.

	·			
	BIDDER COMPLIES	YES		
IF N	O, EXPLAIN			
REA	R COMPARTMENT BELOW HOSE BED			
	e shall be a compartment below the hose, between the high x 88" deep.	frame rails, approx	imately 26" wide >	: 9
	BIDDER COMPLIES	YES	. NO	
IF N	O, EXPLAIN			
CON	IPARTMENTATION LEFT SIDE			
Ther	e shall be a compartment below the turntable.			
One door The	e shall be two compartments above the rear wheels: Approximately 40" wide x 27" high x 12" deep. This co equipped with "D" ring latch and gas door stay. other Approximately 58" wide x 27-1/2" high x 12" deep lift up door equipped with "D" ring latch and gas door s	. This compartmen		-
unde L4- L5-	e shall be two to three compartments behind the rear warstood the widths will be equal to the three compartme Approximately 45" wide x 56" high x 26" deep. Approximately 22" wide x 48" high x 26" deep. Approximately 34" wide x 40" high x 26" deep.	•	artments its	
	BIDDER COMPLIES	YES	NO	_
IF N	O, EXPLAIN			

COMPARTMENTATION RIGHT SIDE

There shall be a compartment below the turntable.

There shall be two compartments above the rear wheels:

One Approximately 40" wide x 27" high x 12" deep. This compartment shall have a pan type lift up door equipped with "D" ring latch and gas door stay.

The other Approximately 58" wide x 27-1/2" high x 12" deep. This compartment shall have a pan type lift up door equipped with "D" ring latch and gas door stay.

There shall be two to three compartments behind the rear wheels. If two compartments its understood the widths will be equal to the three compartment configuration

L4- Approximately 45" wide x 56" high x 26" deep.	inguration		
L5- Approximately 22" wide x 48" high x 26" deep.			
L6- Approximately 34" wide x 40" high x 26" deep.			
BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			
COMPARTMENT INTERIOR - L4			
The L4 compartment on the left side of the apparatus shall include	e the followir	ng features:	
There shall be an adjustable shelf provided and installed in the confabricated of .188" aluminum plate.	ompartment.	The shelf sh	nall be
There shall be a vertical divider/partition provided in a compartme be constructed of .188" thick smooth aluminum plate. The top and formed flange bolted to the interior of the compartment.	•		
There shall be an adjustable vertical slide-out tool board with a 25 mounted on unistrut tracks. Extra compartment lights shall be properly illuminate the compartment.	•	• • •	
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			

COMPARTMENT INTERIOR - L5

The L5 compartment on the left side of the apparatus shall include the following features:

There shall be an adjustable shelf provfabricated of .188" aluminum plate.	/ided and installed in	the compartment. Th	e shelf shall be
BIDDER C	OMPLIES	YES	NO
IF NO, EXPLAIN			
COMPARTMENT INTERIOR - L6 (if a	pplicable)		
The L6 compartment on the left side of	the apparatus shall	include the following	features:
There shall be an adjustable shelf provfabricated of .188" aluminum plate.	vided and installed in	the compartment. Th	e shelf shall be
BIDDER C	OMPLIES	YES	NO
IF NO, EXPLAIN			
500# SLIDE-MASTER TRAY			
There shall be (4) slide-out trays provio capacity of 500 lbs. and be capable of .188" aluminum plate and have a form	extending 100% of it	ts depth. The tray sha	
BIDDER C	OMPLIES	YES	NO
IF NO, EXPLAIN			
COMPARTMENT INTERIOR - R2			
The R2 compartment on the right side	of the apparatus sha	all include the following	g features:
There shall be an adjustable shelf provfabricated of .188" aluminum plate.	vided and installed in	the compartment. Th	e shelf shall be
BIDDER C	COMPLIES	YES	NO
IF NO, EXPLAIN			

COMPARTMENT INTERIOR – R4

A swing-out tool board with 250# rating shall be provided and mounted in a compartment. The tool board shall be constructed of a 1" square aluminum tubing framework with a 3/16" aluminum mounting surface on each side. The tool board shall be adjustable within the depth of the compartment. It shall be held in the open position with a pneumatic strut and in the closed position with a positive latching mechanism.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
COMPARTMENT INT	ERIOR – R5			
There shall be an adjute fabricated of .188" alu	stable shelf provided and installed in minum plate.	the compartment. T	ne shelf sha	ll be
	o. capacity rollout drawer supplied and 3" deep and shall be mounted on ac	•	artment. Th	e drawe
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
COMPARTMENT INT	ERIOR – R6 (if applicable)			
There shall be an adjute fabricated of .188" alu	stable shelf provided and installed in minum plate.	the compartment. TI	ne shelf sha	ll be
be constructed of .188	al divider/partition provided in a comp thick smooth aluminum plate. The to the interior of the compartment.			
-	stable vertical slide-out tool board wi acks. Extra compartment lights shall compartment.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

<u>UNISTRUT</u>

Each compartment shall come equipped with 1.625" x .875" x .125" aluminum Unistrut channel. The Unistrut shall be securely fastened to the interior walls of the compartment.

Surplus clips will be provided		

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

ROLL-UP COMPARTMENT DOORS

The apparatus body shall be equipped with R.O.M Robinson or comparable Shutter doors where not stated otherwise. The door slats shall be double wall box frame, manufactured from anodized aluminum with a satin finish. The doors shall have the following features:

- Manufactured wholly in the United States.
- Concave individual slat design to prevent loose equipment from hindering door operation.
- Co-Extruded stretch resistant inner seal between slats to prevent metal-to-metal contact and inhibit moisture and dust penetration.
- Interlocking swaged/dimpled end shoes shall be utilized to provide a tight fitting assembly and allow for easy removal in the event of damage.
- Effective counter balancing for ease of lifting and lowering the doors.
- One-piece side rail and track to provide and unobstructed slide area and reduce the risk of binding.
- Non-abrasive replaceable water and dust barrier to keep compartment equipment clean and dry.
- A magnetic type switch integral to the door shall be supplied for door ajar indication and compartment light activation.
- A full width positive latch bar shall be operable with one hand, even with heavy gloves.

A door open indicator light shall be provided in the cab.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
COMPARTMENT LIGHTIN	NG			

Each compartment shall be equipped with self-adhesive LED light strips which shall provide a consistent pattern to illuminate to entire compartment.

BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN			
HOSE BED			
The rear hose bed shall allow for quick and easy loading and un hose and hose couplings from being caught or tangled. The hos 800' of 5" hose.	•	•	_
Any rear hose bed opening(s) requiring hose chutes shall not be bed is not acceptable.	e acceptable. A	side stacker	hose
Hose bed flooring shall be removable slatted aluminum.			
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
HOSE BED COVER			
Black webbing shall be provided and installed on the entire hose unintentional deployment. The webbing shall be secured and fac	•		
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
REAR HOSE BED COVER			
Black webbing shall be provided and installed on the rear of the from unintentional deployment. The webbing shall be secured a bed.			
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
FRONT HOSEBED LIGHTING			
A LED light strip shall be provided, located on the interior of the	front hose bed	wall.	
BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN			
BODY HANDRAILS			
Handrails shall be constructed of type 304 stainless steel 1.2 and knurled gripping surface. Mounting flanges shall be constainless sheet. Each grab rail shall have 90 degree returns pass through the flanges and be welded to form one structurusing 1.25" SS Hex bolts, with a barrier rubber gasket at each a gloved hand to firmly grip the rail.	structed from 7 gau to flanges. The en al unit. The handra	ge, .180 thick, ds of grab rail s ils shall be mou	shall nted
The rails shall be located in the following areas: (Note: These are in addition to those previously mentioned in	n the cab section):		
There shall be one (1) handrail at the side of the pedestal.			
There shall be one (1) handrail located at the entrance to the There shall be two (2) handrails at the rear access ladder to	•		
BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN			
<u>STEPS</u>			
There shall be up to three (3) fold-down steps with integrated the front face of body to provide access to the top of the pum. The quantity and location of steps and handrails shall meet the effect at the time the apparatus is ordered.	np module and com	partments.	
BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN			
RUB RAILS			
The body shall be equipped with anodized aluminum channe shall be spaced away from the body by 1/2" polymer spacers bright finish.	•		
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			

ALUMINUM TREADPLATE

All load bearing aluminum treadplate running boards shall be .155 thick bright annealed with a serrated embossed finish. Running boards and rear step edges shall be flanged down for added strength. Running boards shall also be flanged up to form kick plates. All non-load bearing aluminum shall be .125" thick bright annealed finish. In areas where aluminum treadplate shall function as a load-bearing surface, there shall be a heavy steel sub-structure. This structure shall consist of 3" channel and 1-1/2" angle welded support. This shall assure that there shall be no flexing or cracking of running boards. The aluminum shall be insulated from the steel by closed cell foam body barrier material.

Tre	eadp	late	locatio	ns:

- 1. Skirting around front bumper.
- 2. The step at the cab entrance.
- 3. The jump seat steps.
- 4. The running boards.
- 5. The top of the compartments.
- 6. The top of the turntable.
- 7. The floor of the platform.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
WHEEL LINERS			
fully radiused wheel we weather conditions sha	ell liners with adequate support to mall be provided.	naintain their rigidity thro	ough adverse
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
SCBA CYLINDER CO	MPARTMENTS		
•	even (7) spare breathing air cylinder left and four (4) right. The interior c ene plastic.	•	
	BIDDER COMPLIES	YES	NO
IF NO FYPI AIN			

DOOR FINISH

The single or double SCBA compartments shall have a brushed stainless door equipped with a weather resistant flush fitting thumb latch. The interior of the door shall incorporate a rubber seal to keep the compartment free of road debris and moisture.

BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			
GROUND LADDERS			
The apparatus shall be equipped with 119' of heavy duty, box ladders shall meet the requirements of NFPA 1931 to ensure strength is available for the service intended. The ground lad with non-welded, field replaceable rung to rail connections to plated steel butt spurs shall be utilized for added strength. A provided for easy ladder operation.	e proper design and Iders shall be cons o simplify field repa	d that sufficien structed of alu iirs. Removab	nt Iminum ole
Duo-Safety LADDERS One (1) 10 ft. folding ladder, (mounted in fly section) One (1) 14 ft. combination ladder Two (2) 16 ft. roof ladders One (1) 20 ft. roof ladder Two (2) 24 ft. 2-section extension ladders One (1) 35 ft. 2-section extension ladder The ladders shall have lifetime Warranty against manufacturing	ing defects.		
BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			
<u>LADDER</u>			
One (1) Little Giant ladder, Model 17 shall be provided with a	a range of 9' to 15'.		
One of the roof ladders shall be mounted on the side of the b	pase section of the	aerial.	
BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			

LADDER ENCLOSURE

The ground ladders shall be stored within a weather resistant enclosed area on the officer's side of the hose bed area. The ladders shall be mounted on non-metallic slides so each ladder can be removed individually. All ladders shall be stored on beam if possible. A vertically hinged treadplate door shall enclose the ladders on the rear.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
LADDER CHUTE DOO	<u>R</u>			
An aluminum diamond բ	plate door shall enclose the ladder	s at the rear.		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
RECEIVER (Sides)				
rear sides of the body.	rovided and mounted directly to the The receiver shall be 2" x 2" heavith a maximum capacity of 5,000 (10,000 lbs).	avy wall tube and soli	dly re-enfor	ced. The
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
RECEIVER (Rear)				
frame. Receivers that n x 2" heavy wall tube and	provided and mounted directly to the nount to the body subframe shall reduced a solidly re-enforced. The receiver shall be designed for a 2-1 straigh	not be acceptable. The shall be rated with a r	e receiver sl maximum ca	hall be 2"
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

LICENSE PLATE BRACKET

A Cast Products LP0013 cast aluminum license plate bracket with LED light shall be provided at the rear of the apparatus.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

BODY ELECTRIC SYSTEM

All body electrical wiring in the chassis will be XLP cross link-insulated type. Wiring is to be color-coded and include function codes every three (3) inches. Wiring harnesses will be routed in protective, heat resistant loom, securely and neatly installed. Two power distribution centers will be provided in central locations for greater accessibility. The power distribution centers contain automatic thermal self-resetting breakers, power control relays, flashers, diode modules, daytime driving light module, and engine and transmission data links. All breakers and relays are utilized in circuits which amp loads are substantially lower than the respective component rating thus ensuring long component life. Power distribution centers will be composed of a system of interlocking plastic modules for ease in custom construction. The power distribution centers are function oriented. The first is to control major truck function and the second controls overhead switching and interior operations. Each module is single function coded and labeled to aid in troubleshooting. The centers also have accessory breakers and relays for future installations. All harnesses and power distribution centers will be electrically tested prior to installation to ensure the highest system reliability.

All external harness interfaces will be of a triple seal type connection to ensure a proper connection. The cab/chassis and the chassis/body connection points will be mounted in accessible locations. Complete chassis wiring schematics will be supplied with the apparatus.

The wiring harness contained on the chassis shall be designed to utilize wires of stranded copper or copper alloy of a gauge rated to carry 125% of maximum current for which the circuit is protected without exceeding 10% voltage drop across the circuit. The wiring shall be uniquely identified by color code or circuit function code, labeled at a minimum of every three (3) inches. The identification of the wiring shall be referenced on a wiring diagram. All wires conform to SAEJ1127 (Battery Cable), SAEJ1128 (Low Tension Primary Cable), SAEJ1560 (Low Tension Thin Wall Primary Cable).

All harnesses shall be covered with moisture resistant loom with a minimum rating of 300 Degrees Fahrenheit and a flammability rating of VW-1 as defined in UL62. The covering of jacketed cable has a minimum rating of 289-degree Fahrenheit.

All harnesses are securely installed in areas protected against heat, liquid contaminants and damage. The harness connections and terminations use a method that provides a positive mechanical and electrical connection and are in accordance to the device manufacturer's

devices. These device	SAE1292. All circuits are provided s are readily accessible and protect nage, and water spray. Star washers	ted against heat in o	excess of compone	
	BIDDER COMPLIES	YES	. NO	-
IF NO, EXPLAIN				-
BACK-UP ALARM				
•	sting electronic back-up alarm proce rails. It shall operate whenever the	•		
	BIDDER COMPLIES	YES	. NO	_
IF NO, EXPLAIN				_
STOP/TAIL/TURN/RE	VERSE LIGHTS			
(1) each side on the re located in the top posit 60A00TAR located belo (maximum intensity) lo	everse lights shall be Whelen 600 s ar of the apparatus body. The stop/t ion of the housing. The amber arrow ow the stop/taillights. The reverse lig cated below the turn signals. The bo en 600 series warning light.	aillights shall be LED v turn signals shall be ghts shall be LED mo	model 60BTT LED model del 60C00WCR	ne
	BIDDER COMPLIES	YES	NO	_
IF NO, EXPLAIN				_
LED ICC/MARKER LIG	<u>GHTS</u>			
LED type ICC/marker li	ights shall be provided to meet D.O.	T. requirements.		
	BIDDER COMPLIES	YES	NO	_
IF NO, EXPLAIN				_

instructions. No connections within the harness utilize wire nut, insulation displacement, or insulation

piercing.

FLEXIBLE MARKER LIGHTS

A LED flexible marker lig	tht shall be mounted on the rear k	ower corners of the boo	dy, one each side.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
STEP LIGHTS			
	ng board area shall be illuminated on the front of the body in chrome	-	neter LED lights
	vidually mounted lights shall be prate all stepping surfaces.	rovided at the rear of th	ne body and at the
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
GROUND LIGHTING			
Lighting shall be provide automatically activated with model #44042C LED. Li	equipped with lighting capable of i ed at areas under the driver and co when the exit doors are opened. T ghting required in other areas suc the parking brake is applied, prov	rew riding area exits an The ground lights shall l ch as work areas, steps	nd shall be be Truck-lite® s and walkways
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
REAR WORK LIGHTS			
` ,	00-F-B LED flood lights shall be prear of the apparatus body. The lig	` '	
and san man the anyon.	BIDDER COMPLIES	YES	NO
IF NO. FXPI AIN			

OPTICAL WARNING SYSTEM

The optical warning system shall be capable of two separate signaling modes during emergency operations.

One mode shall signal to drivers and pedestrians that the apparatus is responding to an emergency and is calling for the right-of-way and the other mode shall signal that the apparatus is stopped and is blocking the right-of-way.

A momentary rocker switch shall be provided near the driver and labeled Master Emergency to energize all of the optical warning devices provided. A secondary momentary rocker switch shall be provided near the officer. All lights shall operate at not less than the minimum flash rate per minute as specified by NFPA.

YES

NO

BIDDER COMPLIES

		_	
IF NO, EXPLAIN			
UPPER LEVEL WARNING DEVICES			
The upper level shall be divided into zones A (front), B (officer's sic	le), C (rear)	and D (driver	s side).
Zone A (front) shall have one (1) Whelen Freedom IV 72" Model F4 (14) LED modules. The light bar shall have two (2) end red LED m modules, eight (8) forward-facing red LED modules and two (2) for The light bar shall have all clear outer lenses. The light bar shall be forward as possible with two (2) MK8H 5" cast aluminum risers.	odules, two ward-facing	(2) corner red white LED me	LED odules.
BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			
<u>OPTICOM</u>			
An LED opticom emitter shall be provided in the light bar. The optic near the driver.	com shall be	wired to a sw	ritch
BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN			

LOWER LEVEL WARNING DEVICES

The lower level shall be divided into zones A (front), B (officer's side), C (rear) and D (driver's side).

Zone A (front) shall have four (4) Whelen 600 series model 60*02F*R Super LED warning lights.

The lights shall be installed two (2) each side on the front of the cab in the warning light housings.

Zone B (officer's side) shall have four (4) Whelen 600 series model 60*02F*R Super LED warning lights.

The lights shall be installed one (1) near the front corner of the apparatus, one (1) under the turntable area, one (1) near the rear axle, and one (1) near the rear corner of the apparatus.

Zone C (rear) shall have two (2) Whelen 600 series model 60*02F*R Super LED warning lights installed one (1) each side on the lower rear of the apparatus.

Zone D (driver's side) shall have four (4) Whelen 600 series model 60*02F*R Super LED warning lights.

The lights shall be installed one (1) near the front corner of the apparatus, one (1) under the turntable area, one (1) near the rear axle, and one (1) near the rear corner of the apparatus.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

ADDITIONAL WARNING LIGHT BARS

There shall be (2) additional Whelen Freedom IV 21"" LED light bars, Model F4MINI, each with five (5) LED modules. Each light bar shall have one (1) end red LED module, two (2) corner red LED modules, and two (2) forward-facing white LED modules. The light bars shall have all clear outer lenses. The light bars shall be installed on the cab roof each with two (2) MK8H 5"" cast aluminum risers.

	BIDDER COMPLIES	YES	NO	
IF NO. EXPLAIN				

ADDITIONAL WARNING LIGHTS

There shall be two (2) additional Whelen 600 series model 60*02F*R Super LED warning lights installed on the apparatus.

BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN		
ADDITIONAL WARNING LIGHTS		
There shall be (2) additional Whelen ION T-Series TLI* LE apparatus.	ED warning lights insta	lled on the
BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN		
ADDITIONAL WARNING LIGHTS		
Two (2) additional Whelen M9V2* LED series warning ligh	hts shall be installed or	the apparatus.
BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN		
BROW MOUNTED LED SCENE LIGHT		
One (1) FireTech 72" 3-piece FT-B-72-ML-3PKIT-* brown provided. The lamp head shall operate at 12 volts DC, dralumens of light. The light shall be mounted at the front brown switch in the cab. All custom mounting brackets shall be says.	aw 23.8 amps, and ger ow of the cab and shall	nerate over 30,000
BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN		

SCENE LIGHTS

Two (2) FireTech Mini-Brow FT-MB-2.18-FT-* scene lights shall be provided. The fixture shall have two (2) rows of 18 LEDs (36 LEDs total). The overall length should be 21". The fixture shall operate from 9-32v DC, shall draw 15 amps @ 12v DC, and shall produce 19,008 equivalent lumens. The fixture will have a combination of spot and flood optics and shall be wired to a switch above the driver. The light shall be mounted using an adjustable captive rail with detachable mounting feet. The device manufacturer shall warrant the fixture against defects in materials or workmanship for the life of the apparatus.

The lights shall be mounted one (1) each side above the cab rear crew doors.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
SCENE LIGHTS				
two (2) rows of 45 LED from 9-32v DC, shall of fixture will have a condriver. The light shall	Brow FT-MB-2.45-FT-* scene light so (90 LEDs total). The overall length draw 38 amps @ 12v DC, and shall are not spot and flood optics a be mounted using an adjustable carer shall warrant the fixture against so.	h should be 50". The produce 47,520 eq nd shall be wired to ptive rail with detac	e fixture shall uivalent lume o a switch at hable mount	operate ens. The oove the ing feet.
The lights shall be mou	unted each side of the body above the	e L3 and R3 compar	tments.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
ADDITIONAL 3-WAY	SWITCHES			
Four (4) additional 3-w	ay switches shall be provided per the	e customer's location	1.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
<u>GENERATOR</u>				
system. A hydraulic 10	e equipped with a "Smart Power" com .0 KW generator shall be provided ar nt National Electric Codes as outlined	nd installed. The gen	erator and w	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

BREAKER BOX

A circuit breaker box shall be provided with eight (8) spaces for breakers which shall be provided as needed. All wiring shall be installed in liquid tight conduit.

	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
BREAKER PANEL			
The breaker panel shall m guidelines.	neet all requirements set forth by th	e National Electrical (Code and NFPA
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
120-VOLT OUTLETS			
Two (2) 120-volt outlets w installed in liquid tight con	ith weatherproof cover shall be pro duit. BIDDER COMPLIES	ovided. All 120 volt wir	
IF NO, EXPLAIN			
240-VOLT OUTLET			
A 240-volt outlet with wea in liquid tight conduit.	therproof cover shall be provided. A	All 240-volt wiring sha	ll be installed
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
CORD REELS			
reels shall come complete	ctric rewind cable reels furnished a with 150 feet of 10/3 Seoprene W nd HS-3 cable stop ball shall be pr	ater-resistant (SOW)	•
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

REEL MOUNTING

The specific mounting	location shall be determined at the	preconstruction confer	rence.	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
FOUR WAY RECEPTA	ACLES			
cable. The box shall be	otacle boxes with light shall be prove securely mounted in the immediat um bracket equipped with a Velcro	e area of the cord reel	. The mou	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
SURFACE MOUNTED	LED SCENE LIGHT			
The lamp head shall o	Spectra SPA260-J20 surface mour perate at 240 volts AC, draw 1 amp on the front face of the aerial platfo	, and generate 20,000	lumens of	light. The
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
SURFACE MOUNTED	LED SCENE LIGHT			
The lamp head shall o	Spectra SPA260-J20 surface mour perate at 240 volts AC, draw 1 amp under the aerial platform and shall	, and generate 20,000	lumens of	light. The
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

TELESCOPIC LED SCENE LIGHTS

Two (2) Fire Research Spectra SPA547-J20-ON telescopic LED scene lights shall be provided. The lamp head shall operate at 240 volts AC, draw 1 amp, and generate 20,000 lumens of light. The light shall be installed on the rear of the aerial platform and shall be controlled from a switch located on the lamp head.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
MID-MOUNT AERIA	AL			
AERIAL LOWER MAIN	I FRAME ASSEMBLY			
	oly shall be mounted mid-ship on the shall leave the rear hose bed open			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
TURNTABLE BEARING	<u>G</u>			
The turntable bearing s	hall be constructed of steel.			
to rotate 360 degrees in	ntable bearing shall be a minimum n either direction on a one inch thic he main frame assembly using a m	k steel plate. The turnt	able bearing sha	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				_

<u>UPPER TURNTABLE</u>

The turntable shall be a minimum of one-inch thick plate and ninety-six (96) inches in diameter. The side plates to which the main base section of the aerial ladder is connected shall have a minimum height of four feet and shall include I-beam gussets of approximately fifty inches in length that tolerate the side thrust and tremendous forces to which the unit would be subjected.

The turntable shall be bolted to the turntable bearing using a minimum of 36 Grade 8 bolts.

The turntable shall be equipped with two removable aluminum sections for access into the pump.

The turntable shall be equipped with a rotating mechanism consisting of two hydraulically powered, planetary gear boxes that shall handle torque loads imposed by water hammer and hose breakage. The rotating mechanism shall give the turntable and boom built in coast as an added safety precaution to avoid lateral boom side-to-side deflection (reactionary whipping effect) caused by the boom being stopped suddenly.

A parking brake system shall be provided that is capable of holding the turntable in a stationary position regardless of the angle or extension of the aerial, while carrying the manufacturer's rated load capacity with the waterway in operation and discharging water at the tip of the aerial fly section. An override shall be provided to release the parking brake when operating with the emergency auxiliary power unit.

The power operated turntable shall provide continuous rotating of the aerial structure clockwise or counterclockwise, thus enabling the structure to be positioned in any segment through 360 degrees. The rotating mechanism shall also provide sufficient power to rotate the aerial sections in any direction at any angle, fully extended, while carrying the manufacturer's rated load capacity with the waterway in operation and discharging water at the tip of the aerial fly section.

Provisions shall be made for emergency operation of the rotation system should loss of engine power occur. This shall be done through an auxiliary power unit that is capable of providing hydraulic power to safely rotate the aerial.

The complete rotation system shall have built in relief to prevent damage from rotating the boom into buildings or from overloaded water streams. Suitable indicators, clearly visible at all times, shall be provided to facilitate correct alignment of the turntable with the bed of the boom. An automatic light shall be used to show correct alignment for bedding of the ladder from the turntable control station and the platform station.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
LEFT LOWER TURNTABL	E ACCESS LADDER			
There shall be a ladder to a	ccess the turntable pedestal.			
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				

UPPER TURNTABLE ACCESS LADDER

A ladder shall be provided on both sides of the turntable to allow easy access to the climbing ladder. The ladder shall be constructed from heavy wall, knurled aluminum tubing 1.25" in diameter. A large treadplate step shall be located at the top to act as a landing. The entire assembly shall be securely bolted to the upper turntable side plate.

	BIDDER COMPLIES	YES	. NO	
IF NO, EXPLAIN				
<u>INTERLOCK</u>				
brakes have been set an	vided that prevents operation of the and the transmission has been placed veline to the rear axle disengaged.			
An interlock shall be provided that allows operation of the engine speed control only after the chassis spring brakes have been set and the transmission is in neutral.				
position until all the stabi	be provided to prevent the lifting of t lizers are in a configuration to meet t t the moving of the stabilizers unless	he stability require	ments. The interl	ock
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
ROTATION LIMITING SY	<u> </u>			
the aerial into a restricted	system shall be provided to notify ard position due to a "short-set" outrigg ace the aerial in a 180-degree rotation to outriggers only.	er configuration. T	he system shall	
The aerial shall automatic	cally slow down when it approaches	the limit of rotation	travel.	
	able of rotating the aerial two degreesence of the aerial within the second within the aerial within the second se	-		us
	BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN				
SMART BOOM WAR	NING SYSTEM			
	pending contact, the system shall sh ut shall not limit travel of the aerial.	ift the aerial controls	into a redu	ced
	and the smart boom warning system unted at the turntable control pedesta			risual LED
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
ROTATION LIMITING	<u>ALARM</u>			
•	5-S audible warning alarm and LED ached the rotation limit and can also system.	•		
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

HYDRAULIC SYSTEM

A flange mounted 30 GPM hydraulic pump shall be driven by a power take off unit that is connected to the chassis transmission to provide the power required for operating the aerial. The hydraulic system shall have a minimum hydraulic reservoir for 65 gallons of special hydraulic fluid. The hydraulic reservoir shall be located at the left side of the lower mainframe assembly. The hydraulic fluid must be discharged through a fine mesh stainless steel strainer. Within the system, pilot operated check valves shall be incorporated so that all valves hold in their respective function(s). A ten (10) micron return filter of 40 gpm capacity, with replaceable cartridge, shall be provided.

The hydraulic system shall also incorporate automatic by-passes to compensate in the event the boom is forced into a building or the operator accidentally moving the control valve in the opposite direction while at full speed.

The hydraulic system shall provide coast in the lift cylinders to prevent the outrigger jack system from coming off the ground. This shall be accomplished through programmable platform controls that limit the acceleration and deceleration of the boom.

Intercooling of the hydraulic oil shall be accomplished through a built in heat exchanger to cool oil at all times.

All hydraulic lines shall be of the double braided type, with synthetic cover, rated at 12,000-psi burst pressure or above. A PTO hour meter shall be provided to record the time when the aerial hydraulic system is engaged.

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NO

RIDDER COMPLIES

	DIDDER COMIT LIES	720	. /10	
IF NO, EXPLAIN				
<u>AUXILIARY HYDRAU</u>	ILIC POWER			
system shall be opera	np shall be provided to supply emerg ted off the truck batteries and provide er jacks under emergency conditions	e limited but adequat	-	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

CONTROL PEDESTAL

There shall be an aerial control pedestal located on the left side of the turntable. The control station shall encompass three electric over hydraulic proportional lever type controllers for raising/lowering, extending/retracting, and rotating the aerial device. The control valves shall be a proportional type to allow feathering characteristics during any operation.

The turntable pedestal controls shall have manual overrides within the console useable through an access door. The lower pedestal controls shall cancel the platform controls under all conditions.

The pedestal shall have removable panels for access to the hydraulic lines, valves and electrical wiring. There shall also be a hinged cover at the top of the control station for additional access. A safety guardrail shall be provided at the turntable pedestal control station to prevent the operator from falling. The lower pedestal controls shall completely override the platform controls under all conditions and shall be grouped in a convenient manner and properly illuminated for nighttime operation. Each pedestal hydraulic control shall be equipped with electro-magnetic solenoids, which shall operate the hydraulic valves corresponding to the electrical controls mounted in the platform for aerial boom operation. The lower pedestal control station shall be situated so the operator can easily observe the platform while operating the controls.

The following additional items shall be mounted at the top of the turntable pedestal control station:

- a. Automatic panel light to illuminate controls for nighttime operation;
- b. On/Off control switch for boom lights (one light mounted on each side of the boom);
- c. Three-way switching with the Platform for optional ladder lighting;
- d. Three-way switching with the Platform or on/off control switch for other optional lighting;
- e. Three-way switching with the Platform for the rear bucket scene light;
- f. On/Off control foot switch for high-speed control of the hydraulic system;
- g. Three-way switching with the Platform for "creep mode" for aerial control functions and indicator LED:
- h. Illuminated emergency push button to deactivate the platform controls with the turntable electric controls remaining operable;
- i. Low breathing air system pressure warning LED indicator;
- j. Pedestal control power LED indicator;
- k. Platform control power Led indicator:
- I. Intercom communication system;
- m. Tag displaying functions for each pedestal boom operation;
- n. Tag displaying rated load capacity for the platform;
- o. LED indicators for cab and body damage (crush zones), jacks status, rungs aligned, tower aligned, rotation interlock, light tower (if truck is equipped with a light tower);
- p. Audible alarm for cab or body damage (crush zones), rotation interlock stop (when short-jacked) and low breathing air;
- g. Interlock override button.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
<u>INCLINOMETER</u>				
An illuminated inclinom location.	eter shall be provided and mounte	d in plain view of the pe	edestal op	erator
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

BOOM ASSEMBLY

An elevated platform of the telescopic design consisting of a minimum of five sections shall be provided.

The five sections produce a compact retracted length, allowing the platform to be positioned in tight or confined spaces at lower degrees of elevation.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
AERIAL SPOT LIGHTS				
	X-5-S-B LED spotlights shall be prov se section to illuminate the aerial dev vitch at the pedestal.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
AERIAL PLATFORM DE	VICE			
dimension shall be calculnot be less than 89 feet.	with a minimum 100-foot vertical rea ated with the boom at 80 degrees. Th The overall height of the apparatus w e than 11 feet 6 inches, and the over	he horizontal read vith the aerial devi	ch of the de ice in the be	vice shall edded
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
CLIMBING LADDER				
handrail extending toward accessibility to and from t boom section allowing the climbing area shall be fre	ng ladder with a full profile handrail st ds the platform shall be provided for a the platform. Each section of the ladd e ladder to extend automatically at th e of cables, waterway, and extension cape way free of all obstacles.	a continuous esca der shall be attach e same rate as th	ape way and ned to a spe ne boom. Th	d ecific ne
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

LOAD CAPACITIES

	pacities shall be established with the sation. Capacities shall be based upor			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
35 MPH WIND COND	ITION (DRY)			
	all have a rated capacity of 1000 pour "NO WATER" flowing or in the water		or extensio	n. This
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
35 MPH WIND COND	ITION (WET)			
•	all have a rated capacity of 500 pound TH WATER" flowing or in the waterwa	-	r extension	. This
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
LADDER LIGHTING	SYSTEM			
shall be spaced along	nall be illuminated by FireTech FT-WL the length of the boom to provide eve se turntable pedestal and one (1) swite	en lighting. The lights	s shall be a	
	BIDDER COMPLIES	YES	NO	

LIFTING CYLINDERS

IF NO, EXPLAIN _____

The raising and lowering mechanism shall consist of two hydraulic cylinders approximately 7" in diameter.

The cylinders shall be attached to the boom assembly in a manner that requires only 50% of the lifting force. The cylinders shall be capable of lifting the full rated load of 1000 lb. with the boom at full horizontal extension with less than 1500 psi. hydraulic pressure.

The power operated raising and lowering cylinders shall provide movement of the ladder and platforms rapidly and smoothly without undue sway or vibration. A positive locking device shall be provided so the desired angle of elevation can be maintained indefinitely without dependence upon engine power.

As a safeguard feature, the lifting system shall be structurally and hydraulically designed and mounted to prevent rapid descent (lowering) of the aerial unit in the event of detachment, failure or hydraulic hose break. In the event of failure of any raising mechanism during operation, the gravity descent of the ladder shall be kept at a speed, which shall prevent damage to the equipment or danger to personnel. Provisions shall be made to prevent damage at full raise and lowering. There shall be a pilot-controlled check valve on each cylinder.

YES

NO

BIDDER COMPLIES

IF NO, EXPLAIN	
WATER SYSTEM TO THE PLATFORM	
Water shall be supplied through a machine honed and fitted telescopic waterway constructed tensile aluminum. The waterway sections shall be provided with special pack gland type seat minimum maintenance and the seals shall be located on the inside of the telescoping water waterway seals located on the outside of the waterway shall not be acceptable due to the decreased life expectancy caused by foreign particles and bad weather conditions damagin	als for way.
The waterway and platform nozzles shall have the capability of flowing a maximum of 2,000 per minute.	gallons
Two (2) automatic relief valves, at the top and the bottom of the waterway, shall be provided eliminate any damage to the waterway by pressure shock or retracting the boom with the drivalve closed.	
BIDDER COMPLIES YES NO	
IF NO, EXPLAIN	

OUTRIGGER GROUND JACKS

The single outrigger control station shall control all outrigger operations allowing for a one-person operation and quick set-up.

Individual control valves shall be supplied for each mode of outrigger operation. There shall be a plaque located next to each control displaying the function.

A hydraulic transfer valve (diverter valve) shall be installed to direct hydraulic power to either the outrigger operations or the boom operations to prevent operation of both circuits at the same time.

Fluid capacity plate for all lubricants and filter part numbers shall be provided.

There shall be four other controls located at the outrigger control station:

- a. aerial interlock override push button control to allow the boom to be raised from the nested position if an outrigger is "short-set"
- b. auxiliary hydraulic motor push button control
- c. high speed / creep push button control for the hydraulic system
- d. upper power/hydraulic transfer switch that turns control power on/off to the pedestal and platform. The switch also permits hydraulic fluid flow to the pedestal control valves.

The extendable outrigger stabilizers, when fully extended, shall have a spread in accordance with the manufacturer's best practices and engineering specifications.

There shall be an audible alarm and warning light that are automatically activated when the outriggers are being deployed.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
AERIAL JACKS ALA	<u>RM</u>			
An alarm shall be aud in fully deployed oper	lible when the aerial jacks have been ations.	deployed either in the	short jac	k mode or
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

OUTRIGGER SPOT LIGHTS

Two (2) FireTech FT-LZC2-4-B Laser Cannon lights shall be provided. One shall be mounted on each side on the apparatus to illuminate the area of the outriggers at full extension. The lights shall be activated by a switch inside the cab near the driver or when the parking brake is activated.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
OUTRIGGER PADS				
Two (2) jack pads shall	be provided.			
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
OPERATIONAL TEST				
of the platform operation from the platform control and extend to full specific without vibration. The platform a thorough inspection sleveling system. This test shall be repeated.	e, setting the jacks and transmitting in shall be carried out as follows: Will station, raise the platform from how lied height. This shall be completed atform shall then be retracted and hall be made of all moving parts with the demploying the controls at the low	th one person opera orizontal, rotate throu in less than 150 sec lowered to its starting th special attention g wer pedestal control	ting the madgh a 90 degeonds, smooth grounds, smooth grounds, smooth and the properties of the propert	chine gree turn othly and fter which olatform
effectiveness of the low	er control override shall be demons	trated.		
	BIDDER COMPLIES	YES	_ NO	
IF NO, EXPLAIN				
AERIAL DEVICE TEST	& CERTIFICATION			
device shall be inspected all nondestructive testing	be tested and certified by a third par ed and tested in accordance with the ng (NDT) prior to being subjected to bility test, horizontal load test, and a	he requirements of to the tests defined in	NFPA 1911, in NFPA 19	, including 01. These

YES

NO

BIDDER COMPLIES

IF NO, EXPLAIN					
PLATFORM AND EQUIPMENT					
The platform shall be constructed of heat reflecting reinforced aluminum to protect occupants against flash fires and freezing weather. The platform shall have a minimum floor area of 19.5 sq. and shall be provided with closed sides, 42" high all around. The platform shall be completely enclosed along the floorboard to protect occupants. There shall be four doors in the platform, two he front and two in the rear, each of which shall be provided with a suitable safety latch. All doors shall latch and open inward to avoid accidentally falling from the platform.					
A total of four (4) anchor points shall be provided within the platform for the attachment of safety harnesses.					
A slip-resistant front access step shall be provided, full width of the platform, approximately 8-1/2" wide. The front corners shall be chamfered for accessibility to parapets and roofs.					
Drain openings shall be provided to prevent water accumulation in the platform.					
A platform leveling system shall be provided and so designed that the platform together with its rated load shall be supported and maintained level in relation to the turntable regardless of the position of the boom or sections. This shall include dual hydraulic cylinders on each side of the platform (four cylinders total) and a self-contained hydraulic leveling system (fully enclosed) in the end of the boom so that no hydraulic lines, reel or base controls have to travel through the telescoping sections, helping to eliminate service problems or failure of the leveling system due to ruptured lines or leaking reels. The platform pivots shall be mounted above center (characteristic or a ferris-wheel suspension) to prevent dumping the platform should a malfunction of the leveling system occur. As a safety feature, should a malfunction occur, there shall be an emergency manual override control to level the platform.					
BIDDER COMPLIES YES NO					
IF NO, EXPLAIN					
PLATFORM BOOM OR SECTION BED LOCK					
An interlock system shall be provided which shall prevent action and movement of the retracted elevating platform boom or sections in their bed until the ground jacks are placed in position to stabilize the vehicle.					

YES____

NO

BIDDER COMPLIES

IF NO, EXPLAIN			
LOAD LIMITATIONS			
Load instruction plates shall be located control station indicating the safe load capacity indicated in the following matthe hydraulic pressures prescribed by functions can be operated simultaneous	I of the platform. The platform sonner: raise, extend, rotate, retractions, the manufacturer. Extensions,	shall carry the r act and lower v	ated load vithout exceeding
THE PLATFORM SHALL BE CAPABI POSITION OF OPERATION ACCOR		LOAD SAFEL	Y IN ANY
BIDDER	COMPLIES	YES	NO
IF NO, EXPLAIN			
DOOR SKINS, FORWARD			
From the stowed position, each forward plate material. Each door skin shall be	<u> </u>	ll be covered v	vith diamond-
BIDDER (COMPLIES	YES	NO
IF NO, EXPLAIN			
DOOR SKINS, REARWARD			
From the stowed position, each rearw plate material. Each door skin shall be		all be covered	with diamond-
BIDDER	COMPLIES	YES	NO
IF NO, EXPLAIN			
PLATFORM ACCESS LADDER			
There shall be an aluminum treadplat the platform. Each step will be illumin		the rear of the	body to access
BIDDER	COMPLIES	YES	NO

IF NO, EXPLAIN		
•		

PLATFORM CONTROLS FOR BOOM OPERATION

The platform control station shall be on the forward wall of the platform, centered for ease in operator viewing while operating the platform. The three controls shall control the functions of raising and lowering, extension and retraction and rotation of the aerial. The placement of the controls shall conform to NFPA. The controls shall be of the electronic type. This system shall provide diagnostic functions to aid in trouble shooting as well as programmable features to control speed, acceleration and deceleration. The controls shall be lighted for nighttime operation. All electrical connections to the control panel shall be made through waterproof connections and be easily removed or replaced for service.

The following additional items shall be located at the platform control station:

- a. On/off control switch for light to illuminate controls for nighttime operation.
- b. Foot operated switch for high-speed control of the hydraulic system.
- c. A button to activate "creep mode" of the aerial operation.
- d. Slave intercom station allowing "hands free" operation of the intercom.
- e. A "rungs aligned for climbing" for all high-handrail aerial ladder platforms.
- f. On/Off control for Platform Control Power
- g. Three-way switching with the Pedestal for optional ladder lighting
- h. Three-way switching with the Pedestal or on/off control switch for other optional lighting
- i. Three-way switching with the Pedestal for the rear bucket scene light
- j. On/Off control foot switch for high-speed control of the hydraulic system
- k. Three-way switching with the Platform for "creep mode" for aerial control functions and indicator LED
- I. Low breathing air system pressure warning LED indicator
- m. LED indicators for cab and body damage (crush zones), jacks status, rungs aligned, tower aligned, rotation interlock, light tower (if truck is equipped with a light tower)
- n. Audible alarm for cab or body damage (crush zones), rotation interlock stop (when short-jacked) and low breathing air

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

INCLINOMETER

An illuminated inclinometer shall be provided and mounted in plain view of the aerial platform operator.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
PLATFORM CONTRO	OL COVER			
	provided over the control panel in the snaps shall be used at the bottom.	e aerial platform. The	cover sha	ll be
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
PLATFORM SPOT LI	<u>GHT</u>			
	VL-X-5-S-B, LED spotlight shall be pr the operator. The light shall be active		-	
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
120 VOLT CIRCUIT T	O PLATFORM			
the tip of the ladder. Through the collector r) female, three-prong, twist lock rece	osed terminal strip be	elow the tu	ırntable
	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				
WATER CURTAIN				
valve inside the platfor curtain below the platf	shall be provided beneath the platfor rm. The spray system shall provide 7 orm. As a safety factor, one or both to s of water directly below.	5 GPM of water in a	25 ft. diam	neter watei
IENO EVOLAN	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

AUXILIARY OUTLETS

Directly behind each turret a 2-1/2" NST outlet, reduced to an 1-1/2" with cap and chain, shall be provided as auxiliary outlets with gate valves near the platform. A hose carrier for 50 ft. 1-1/2" hose shall be provided in the platform.

	BIDDER COMPLIES	YES	. NO	
IF NO, EXPLAIN				
AERIAL MONITOR NO	<u>OZZLES</u>			
	equipped with an electric remote-con		_	t
The other monitor shal discharge pipe.	I be equipped with a set of stacked	deluge tips and a stre	eam shaper	
	BIDDER COMPLIES	YES	. NO	
IF NO, EXPLAIN				
DRIVERS SIDE PLAT	FORM MONITOR			
be constructed of light directly attached to the water. The monitor sha will flow 1250 GPM. T shall be installed at the	orm monitor shall be an Akron Stream weight Pyrolite® and have a flow cate platform with a 4" manually operate all have a 4" flange with a 2.5" outlet the monitor shall be controlled by two pedestal and one (1) shall be instated in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall be installed in a local state of the controller shall	pacity of 1250 GPM. ed butterfly valve to of and at full flow of the of the of (2) model #6041 to a liled inside the aerial	The monitor shal ontrol the flow of aerial waterway ggle station. One platform. A mode	it (1)
	BIDDER COMPLIES	YES	. NO	
IF NO, EXPLAIN				
OFFICER'S SIDE PLA	ATFORM MONITOR			
•	orm shall be equipped with a set of a cream shaper discharge pipe.	Akron style 2499 qua	d stacked deluge	tips:
	BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN			
INTERCOM			
An intercom system shall be installed to furnish communications be turntable. The intercom kit shall include three control modules, one have a push-to-talk button, three speakers, and cables. The intercommodules shall require two wires. The control modules shall have a button volume control. The hands-free module shall constantly training push-to-talk button is pressed.	e that is har onnection b n LED volu	nds free and to etween conti me display a	two that rol nd push-
The intercom shall be designed for exterior use.			
BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN			
BREATHING AIR SYSTEM			
A breathing air system to the platform shall be provided.			
One 4500-psi DOT cylinder, with pressure regulator, relief valve, a provided. The system shall terminate in the platform with easy according to accept the customer specified air fittings.		•	
All valves, pressure regulators and gauges shall be protected from	n accidental	damage.	
Weather resistant storage shall be provided for breathing masks in	n the platfor	m.	
There shall be a screw-type shutoff valve and a CGA air fitting sup to which a refill hose can be connected. The fitting shall be installed. There shall be a protective dust cap installed on the air line fittings refillable without disconnecting the airline plumbing.	ed with a st	ainless-steel	tee.
A low air alarm, audible and visual, shall be provided.			
The platform air supply cylinder shall be mounted in accordance w practices.	ith the man	ufactures be	st
BIDDER COMPLIES	YES	_ NO	

IF NO, EXPLAIN		
PARAPET LADDER		
There shall be a ladder assembly pivoting off the platform that and onto roof surfaces. The ladder shall be self-storing and e gas spring assisted lever.	•	
BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN		
STOKES ARMS		
There shall be two arms mounted that are designed to provid and victim. The arms and platform shall have six anchor poin victim.		
BIDDER COMPLIES	YES	
IF NO, EXPLAIN		
<u>LIFTING EYE</u>		
A single lifting eye shall be attached to the fly section of the b stokes basket. When a stokes basket is suspended from the reached by an attendant in the platform. Capacity of the eye suspended from it shall be subtracted from the rated capacity	eye, the basket sh shall be 800 lb. and	all be able to be
BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN		
CORROSION REDUCTION POLICY		
It is understood that fire apparatus will operate in harsh enviro	onments.	
Frame Rails The chassis frame rails shall be coated with a high per inorganic zinc rich primer with a proven cathodic protection r		

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the fram shall be of galvanized construction.

Fasteners

In any area that a stainless-steel screw or bolt head is to come in contact with aluminum, galvinized or steel, painted or non-painted, the fastener shall have the underside of the head pre-coated with nylon. The nylon coating shall act as a barrier between the fastener head and the metal or painted surface.

Screw or bolt taped into the metal shall be pre-coated with a Threadlocker type material pre-applied on the threads.

When bolting together stainless steel the pan-head bolts with nylon coating under the head, a stainless washer with a rubber backing, and a Stover flange nut to secure the bolt, shall be utilized.

When mounting aluminum components such as a step to the apparatus body, stainless steel washers with rubber backing shall be used. All mounted components shall utilize barrier material between the two surfaces.

All rivet or huck type fasteners shall be of the same material being secured.

Whenever possible, holes shall be pre-drilled and taped when mounting components such as lights, steps, and handrails prior to the paint process to reduce the corrosion opportunity. If a hole must be drilled into a previously painted surface, the paint barrier around the hole shall be re-established and a flange-type nutsert with a gasket under the flange shall be used.

When possible, the use of stainless trim screws shall be minimized. Structural tape and or adhesive shall be used where possible for mounting trim to the body or cab.

If a pre-treated screw or bolt is not available, hand applied Dynatex Boltlocker or Theadlocker shall be placed on the threads of the screw, bolt or nutsert. This will help seal threads from moisture and help prevent the fasteners from loosening. If lubricant is used when tapping the hole, the hole will be cleaned of lubricant and the shavings before applying.

Barrier Tape

Barrier tape shall be used on the backsides of all lights, trim pieces, or other components when bolting them to the apparatus; also, when attaching stainless steel over an aluminum surface or when attaching aluminum treadplate to the stainless steel. All instances of dis-similar metals contacting each other require the addition of barrier tape between the metals where contact is made.

Before applying the tape, all metal surfaces shall be clean from oil or dirt with a 50/50 mix of alcohol and water or a similar solvent.

Gaskets

Gaskets shall be used under all snaps, loops and fasteners for such items as for hose bed covers. The paint seal shall be re-established around the mounting hole edges after drilling.

Rollup Doors

1 3/4" X 1/16" barrier tape shall be used on the frame opening to act as barrier between the aluminum door rail and the painted door opening surface.

Hinged Doors

Barrier tape shall be applied to the painted surface of the body and on the painted hinge side of the door.

Painting Steel

Steel shall be wiped of any oil residue, rust, and weld slag or smoke shall be removed. All surfaces shall be cleaned with solvent, primed, and then sprayed with a topcoat. After bolts are tightened to the proper torque, bolts shall be touched up with primer or cold galvanizing coating.

Mounting Emergency Lights and Options

All emergency lights, accessory mountings, power eject covers, and 110 outlet boxes mounted to the body should be mounted with pre-coated Threadlocker and nylon under the head screws or bolts to minimize corrosion between dissimilar metals.

Electrical Grounding

Grounding shall be in accordance with manufacturers best practice.

Proper grounding will help eliminate grounding problems and will reduce the possibility for electrolysis and corrosion to occur, as a result of impressed current be presented to the chassis. All electrical connection points shall be sprayed with electrical sealer as necessary.

Salt Spray Testing

All fasteners and coatings have been chosen after extensive salt spray testing. Salt spray tests are used to confirm the relative resistance to corrosion of coated and uncoated metallic specimens, when exposed to a salt spray climate at an elevated temperature. Test specimens are placed in an enclosed chamber and exposed to a continuous indirect spray of neutral (pH 6.5 to 7.2) saltwater solution, which falls-out on to the specimens at a rate of 1.0 to 2.0 ml/80cm²/hour, in a chamber temperature of +35C., steady state condition.

Method

Salt fog testing is performed by placing samples in a test cabinet that has been designed in accordance with Paragraph 4 (Apparatus) of ASTM B117 and operated in accordance with Paragraph 10 (Conditions) of ASTM B117.

A 5% salt solution, prepared by dissolving sodium chloride into water that meets the requirements of ASTM D1193 Specification for Reagent Water, Type IV is supplied to the chamber. At the time the samples are placed into test, the cabinet is pre-conditioned to the operating temperature of 35°C and fogging a 5% salt solution at the specified rate.

Orientation

The samples are placed at a 15–30-degree angle from vertical or tested in the "installed" position. This orientation allows the condensation to run down the specimens and minimizes condensation pooling. An important aspect of the test is the utilization of a free-falling mist, which uniformly settles on the test samples. This simulates a "real world" condition.

Test	\sim	 rn	+1	\sim	n	_
1 - > 1		 _	,,,	. ,	,,	٠.

Test durations are 500 hours, and the test cabinet will remain closed for the duration of the test.

	BIDDER COMPLIES	YES	NO	
IF NO, EXPLAIN				

PAINTING

The apparatus shall undergo extensive pre-paint preparation. All cab and body trim parts are to be removed prior to painting. All appliance-mounting holes are to be drilled and de-burred prior to painting. This allows mounting holes to be primed and painted. Before prime and finish coats are applied, the complete apparatus shall be properly prepared and treated to permit the best possible adhesion of the primer and finish coats.

All materials used in the paint process shall be of the of the highest quality available. Modern methods shall be employed to assure the finest finish surface possible. All priming, surfacing and painting shall be done in a modern down draft or cross flow paint facility. Experienced personnel trained by the paint manufacturer shall perform all paint application in order to provide the highest quality and most enduring paint finish available. Both aluminum and steel surfaces to be painted shall be primed with a two (2)-component primer which is compatible with the finish coat. The apparatus shall be finish painted with a polyurethane base/clear system. "No Exception"

Utilizing the stainless-steel body fabrication, the interior of all compartments, inside hose bed and surrounding areas adjacent to compartments doors shall remain a #4 brushed stainless steel finish. This practice shall eliminate the possibility of paint chipping, and electrolysis of aluminum, which can cause corrosive action between dissimilar metals. The chassis, compartment doors, front and rear jack doors, and rear fender panels shall be painted the color indicated.

A barrier gasket/washer of "High Density Closed Cell Urethane Foam" shall be used behind all lights, handrails, door hardware and any miscellaneous items such as stainless-steel snaps, hooks, washers and acorn nuts. The gaskets/washers shall be coated with pressure sensitive acrylic adhesive. All screws used to penetrate painted surfaces shall be pre-treated/coated under the head with nylon and the threads shall have pre-coat #80. This procedure shall be strictly adhered to for corrosion prevention and damage to the finish painted surfaces.

The following paint process shall be utilized:

Surface Preparation:

- 1. Wash surface thoroughly with mild detergent.
- 2. Clean and de-grease with Prep-Sol 3812S.
- 3. Sand and feather edge using 400 grit or finer on a dual action sander.
- 4. Remove sanding dust with a cleaner compatible with polyurethane base coat/clear coat final finish.

Substrate treatment:

1. Use a Metal Conditioner followed with a Conversion Coating product.

Priming:

- 1. Use a priming 615S pretreatment.
- 2. Use a self-etching primer applied to achieve a 1.5 mil dft minimum.
- 3. Use Prime N Seal sealer compatible with polyurethane base coat.

Color Coat:

1. Apply polyurethane base coat 1-2 mil dft minimum.

Clear coat:

1. Apply polyurethane clear coat 2 mil dft minimum.

BIDDER CO	MPLIES	YES	NO
IF NO, EXPLAIN			
TWO-TONE CAB PAINT			
The cab exterior surfaces shall be two (2) colors.		
The paint break line shall be at the botto	m of the windshield.		
BIDDER CO	MPLIES	YES	NO
IF NO, EXPLAIN			

PAINTED FRAME AND LOWER AERIAL COMPONENTS

The frame rails, rear drop, fuel beam, outriggers, sway bars, and lower aerial components shall be painted glossy black.

BIDDER COMPLIES	YES	NO	
	: = = =		

IF NO, EXPLAIN			
TEXTURED FRAME RA	L COATING		
The area of the frame rai textured coating that mat	s where the pump module shall be ches the frame rail color.	e located. Shall be ap	oplied with a
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
TURNTABLE PAINT			
The turntable, side plates	and lift cylinders shall be painted	the same color as the	e apparatus.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
ADDITIONAL PAINT PA	CKAGE		
The ladder sheave beam	s, extension cylinder shall be pain	ted the same color as	s the apparatus.
IF NO, EXPLAIN	BIDDER COMPLIES	YES	NO
AIR CONDITIONING CO	NDENSER .		
The air conditioning cond	enser shall be painted to match th	e cab roof.	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
CHEVRON STRIPING, R	EAR BODY OUTBOARD, ORAF	OL REFLEXITE	
rear body panels. The str	6" red and yellow reflective Cheviping will be set in a manner to have high from the outside to the inside	ve the effect of an inv	
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			

CHEVRON STRIPING, REAR PLATFORM OUTBOARD, ORAFOL REFLEXITE

In addition to the outboard rear body panels, the rear platform outboard panels shall also be covered with 6" red and yellow reflective Chevron style striping.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
BOOM SIGN				
.	ately 115" x 12", shall be provided on sign shall be painted primary truc		om. The	
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
MISCELLANEOUS EQ	UIPMENT FURNISHED			
1 pt. touch-up paint				
A bag of stainless-steel	nuts and bolts, as used in the cons	struction of the appara	tus.	
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
WHEEL CHOCKS				
Two (2) Ziamatic #SAC- in the rear ladder acces	-44 folding wheel chocks shall be p s area.	rovided. The wheel ch	ocks shall be	stored
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
PIKE POLE STORAGE	•			
	shall be recessed each side of the near each tube to secure the head			age.
	BIDDER COMPLIES	YES	NO	

IF NO, EXPLAIN			
OPERATION AND SERV	/ICE MANUALS		
completed apparatus. S troubleshooting for major supply part numbers for	d Service" manuals shall be supplice ervice manual instructions shall incomponents of the tructions components of the tructions components (i.e. Engine, Ax rake and overall apparatus wiring s	clude service, mainte ck. The apparatus ma les, Transmission, Po	nance and anufacturer shall ump, etc.). A table
A video demonstration or	n the operation of the truck shall be	e supplied on the flas	h drive.
	BIDDER COMPLIES	YES	NO
IF NO, EXPLAIN			
factory trained delivery e	aratus shall be driven from the mangineer who shall thoroughly demonded to the fire department designate BIDDER COMPLIES	onstrate the complete	e apparatus
IF NO, EXPLAIN			
DEALER PREP/INSPEC	TION		
inspection of the apparatallows for the dealer to reservice and parts can be	sponsible for the sale of the appara us prior to the customer taking pos ecord all applicable part and serial easily facilitated during the service ty control check, prior to the appar	ssession of the vehic numbers for the app e life of the vehicle. T	le. This inspection aratus so that his inspection also
	BIDDER COMPLIES	YES	. NO
IF NO, EXPLAIN			
MADDANITIES			

WARRANTIES

The following warranties shall be supplied. See warranty documents for complete coverage details of each warranty provided.

The apparatus shall be warranted to be free from mechanical defects in workmanship for a period of five (5) year. The apparatus shall be covered for parts and labor costs associated with repairs for a period three (3) year.

- Life-time warranty on the frame.
- Ten (10) year cab structural warranty.
- Ten (10) body structural warranty.
- Ten (10) year warranty on paint.
- Two (2) year aerial mechanical warranty.
- Thirty (30) year aerial structural warranty.
- Two (2) year camera warranty
- Five (5) year transmission warranty
- The OEM warranties shall be applied for all major components.

	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				
MANUFACTURING &	<u>LOCATIONS</u>			
complete stock of serv	manufactured in facilities wholly owner ice parts, and service shall be provid num period of twenty (20) years on e	led. The company sha	all maintain p	arts
	BIDDER COMPLIES	YES	NO .	
IF NO, EXPLAIN				
GRAPHICS PACKAG	<u>E</u>			
A lettering and striping be provided and install	package that closely resembles the ed.	fire department's curr	ent apparatu	s shal
	BIDDER COMPLIES	YES	NO _	
IF NO, EXPLAIN				



VI. PROPOSAL-CONTRACT FORM

The undersigned hereby proposes to furnish the City of Mentor, Ohio the following item(s) in accordance with the Specifications and upon the terms and conditions of this proposal, providing this proposal or any part hereof is accepted as a contract by the City of Mentor.

ITEM#	DESCRIPTION		TOTAL PRICE
1.	2023 Aerial Mid-Mount Ladder Truck	<u>\$</u>	
	Delivery (Days After Receipt of Purchase Order		
	Terms of Sale:		

CONDITIONS: The Instructions to Bidders and the Specifications are a part of this contract as effectively as though they preceded the signatures of the parties. This contract is not valid until accepted and signed by the City of Mentor, Ohio.

VII. STATEMENT OF BIDDER QUALIFICATIONS

1)	Years in business providing the goods or service requested in this bid		
2)	Please list on a separate sheet(s), contracts with municipalities previously held, and now held. Please list by community name, contact person, address, phone number and scope of project (starting with the most recent).		
3)	Is your company in satisfactory financial condition? YesNo		
4)	How many miles is your facility from the Mentor Municipal Center?		
5)	Please list on a separate sheet(s) the equipment to be used in fulfilling this contract.		
6)) Identify the project manager who will be assigned to this project and applicable years of experience managing comparable jobs.		
	For the following questions, on a separate sheet, please describe in full the circumstances for any Yes answer.		
7)	Has your company had any business interruptions as a result of financial conditions in the past two (2) years? YesNo		
8)	Has your company been rejected for a public contract despite being a low bidder for any reason? YesNo		
9)	Has your company had any claims against or a performance bond cancelled? YesNo		
10)	Has your company paid penalties or liquidated damages imposed as a result of delay on a public project? YesNo		
11)	Has your company been found to have committed an unfair labor practice or any other employment/labor law violation in such areas as discrimination, prevailing wage, Workers' Compensation or OSHA? Yes No		
12)	Has your company in the last three (3) years had a municipal contract cancelled or terminated?		

VII. STATEMENT OF BIDDER QUALIFICATIONS (CONTINUED)

BIDDER N	NAME (print/type):		
BIDDER A	ADDRESS:		
BIDDER (CONTACT:		
BIDDER F	PHONE NUMBER:		
BIDDER F	FAX NUMBER:		
BIDDER E	E-MAIL:		
1	Federal Tax Identific	ation Number	
;	State Tax Identificati	ion Number	