## Pittsburg County, Oklahoma COUNTY PURCHASING OFFICE

Pittsburg County Court House McAlester, Oklahoma Phone: (918) 423-4934

## **INVITATION TO BID**

SIDE REL	ATING TO SUE	BMISSION	ONDITIONS ON REVERSE OF THIS BID. e required on reverse side.	DATE ISSUE PAGE 1 OF	12-Feb-24
BID NUME	BER		BID CLOSING DATE AND HOUR	REQUIRED	DELIVERY DATE
	BID # 16		February 23rd, 2024 @ 4:00 PM		Days after award of Purchase Order
TERMS:				DATE OF DE	ELIVERY:
Item	Quantity	Unit of issue	DESCRIPTION	Unit Price	Total
			Quinton Fire Department wishes to advertise for the following:  One (1) or more, New, 3000-gallon Tanker Lease Purchase with Financing Included  SEE SPECIFICATIONS ATTACHED  IF BID IS NOT RETURNED IN THE ENCLOSED ENVELOPE OR IS PLACED IN A FEDEX, UPS OR USPS SHIPPING ENVELOPE, PLEASE MARK ON THE OUTSIDE OF THE ENVELOPE "SEALED BID" & BID NUMER		

#### TERMS AND CONDITIONS

- Sealed bids will be opened in the Commissioner's Conference Room, Pittsburg County Courthouse, McAlester, Oklahoma, at the time and date shown on the invitation to bid form.
- 2. Late bids will not be considered. Bids must be received in sealed envelopes (one to an envelope) with bid number and closing date written on the outside of the envelope.
- 3. Unit prices will be guaranteed correct by the bidder.
- 4. Firm prices will be F.O.B. destination.
- 5. Purchases by Pittsburg County, Oklahoma, are not subject to state or federal taxes.
- 6. This bid is submitted as a legal offer and any bid when accepted by the County constitutes a firm contract.
- 7. Oklahoma laws require each bidder submitting a bid to a county for goods or services to furnish a notarized sworn statement of non-collusion. A form is supplied below.
- 8. Bids will be firm until delivered.

(DATE)

6.1291E+19

AFFIDAVIT: I, the undersigned, of lawful age, being first duly sworn on oath say that he (she) is the agent authorized by the bidder to submit the above bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity; quality or price in the prospective contract or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract; that the bidder/contractor has not paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma (or other entity) any money or other thing of value, either directly or indirectly in the procuring of the award of a contract pursuant to this bid.

Subscribed and sworn before this _ of20		
	Firm:	
My commission expires		Title:
	Address:	Phone:
NOTARY PUBLIC (CLERK OR JUDGE)	City:	State
		Zip

### RESOLUTION 24-203 To Advertise

The Board of County Commissioners, Pittsburg County, met in regular session on Monday, February 12, 2024.

WHEREAS, Quinton Fire Department wishes to advertise for the following:

One (1) or more, New, 3000-gallon Tanker Lease Purchase with Financing Included

A bid package containing complete specifications and an "Invitation to Bid" are available at the Pittsburg County Clerk's Office, 115 E. Carl Albert Pkwy, Room 103, McAlester, Oklahoma 74501 or online at pittsburg.okcounties.org

THEREFORE, each competitive bid submitted to the County must be accompanied with an affidavit for filing with the competitive bid form, as required by Oklahoma Statute, Title 19 O.S. \$ 1501.

Sealed bids will be received and filed with the Pittsburg County Clerk until Friday, February 23, 2024 at 4:00 p.m. All bids received after 4:00 p.m. on Friday, February 23, 2024 WILL NOT BE OPENED. Bids will be opened on Tuesday, February 26, 2024 at 10:00 a.m. in the Board of County Commissioners Conference Room, 115 E. Carl Albert Pkwy, McAlester, Oklahoma. The Board of County Commissioners, Pittsburg County, reserves the right to reject any and all bids and readvertise.

BOARD OF COUNTY COMMISSIONERS PITTSBURG COUNTY, OKLAHOMA

ATTEST:

**CHAIRMAN** 

VICE-CHAIRMAN

MEMBER

COUNTY CLERK

# **Quinton Fire Department**

**Bid Specifications 3,000 Tanker** 

3,000 Gallon Pumper / Tanker	Bidder Complies
SPECIFICATIONS	Yes No
INTENT OF SPECIFICATION	
It is the intent of these specifications to cover our bid for furnishing and delivery purchaser of a complete apparatus equipped as hereinafter specified. With a voltaining the best results and the most acceptable apparatus for service in the department, these specifications cover the general requirements as to the transcription, together with certain details as to finish, equipment, and appliance which the successful bidder must conform. Minor details of construction and may where not otherwise specified are left to the discretion of the contractor, who will be responsible for the design and construction of all features.	view to he fire ype of es with aterials
ADHERENCE TO SPECIFICATIONS	
In order to closely evaluate all bids and determine the responsiveness to the curequest, each proposal must be submitted in the same order as the customer specifion ease of comparison. Each item must have a check mark in the appropriate of indicating compliance. Those items that are different by brand, model number applicable), and operational performance must be clearly defined and listed separate document clearly identified as "Clarifications and Substitutions". Vendors failing to with this request are subject to immediate rejection without further cause.	fication column (when ely on a
SAFETY REQUIREMENTS	
The unit specified meets all State and Federal safety standards and laws that are in ef the date of the bid for the item(s) that are being specified and the particular use for they are meant.	
QUALITY AND WORKMANSHIP	
The design of the apparatus shall embody the latest approved automotive engir practices. Experimental designs and methods shall not be acceptable. The workmansh be of the highest quality in its respective field. Special consideration is given to the fol points: accessibility of the various units that require periodic maintenance, ease of ope (including both pumping and driving) and symmetrical proportions. Construction strugged and ample safety factors shall be provided to carry loads as specified.	ip shall llowing eration
GENERAL CONSTRUCTION	
The complete apparatus, assemblies, subassemblies, component parts, etc. will be de and constructed with due consideration to the nature and distribution of the load sustained and to the general character of the service to which the apparatus is	to be

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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
subjected when placed in service. All parts of the apparatus will be strong enough to withstand the general service under full load. The apparatus will be designed so the various parts are readily accessible for lubrication, inspection, adjustment, and repair.		
The apparatus will be designed, constructed, and equipment mounted, with due consideration to distribution of the load between the front and rear axles, so the specified equipment, including a full compliment of specified ground ladders, full water tank, loose equipment, and firefighters; will be carried without overloading or injuring the apparatus.		
OPERATION AND SERVICE DOCUMENTATION		
The documentation will address at least the inspection, service, and operations of the fire apparatus and all major components thereof. The manufacturer shall also provide documentation of the following items for the entire apparatus and each major operating system or major component of the apparatus:		
<ol> <li>Manufacturer's name and address</li> <li>Country of manufacture</li> <li>Source of service and technical information</li> <li>Parts and replacement information</li> <li>Descriptions, specifications, and ratings of the chassis, pump, and aerial device</li> <li>Wiring diagrams for low voltage and line voltage systems to include the following information: representations of circuit logic for all electrical components and wiring, circuit identification, connector pin identification, zone location of electrical components, safety interlocks, alternator-battery power distribution circuits, and input/output assignment sheets or equivalent circuit logic implemented in multiplexing systems</li> <li>Lubrication charts</li> <li>Operating instructions for the chassis and major components such as a pump and any auxiliary systems</li> <li>Precautions related to multiple configurations of aerial devices, if applicable</li> <li>Instructions regarding the frequency and procedure for recommended maintenance</li> <li>Overall apparatus operating instructions</li> <li>Safety considerations</li> <li>Limitations of use</li> <li>Inspection procedures</li> <li>Recommended service procedures</li> <li>Troubleshooting guide</li> <li>Apparatus body, chassis, and other component manufacturers warranties</li> </ol>		
18. Special data required by this standard		
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
<ol> <li>Copies of required manufacturer test data or reports, manufacturer certifications, and independent third-party certifications of test results (Mid-ship Pump)</li> </ol>		
MANUFACTURING LABELS		
A permanent plate shall be mounted in a compartment specifying the quantity and type of the following fluids that may be used in the apparatus for normal maintenance. Where a fluid is not applicable to the unit, the plate shall be marked N/A to inform the service technician who may not be familiar with the apparatus.		
<ul> <li>Engine oil</li> <li>Engine coolant</li> <li>Transmission fluid</li> <li>Pump transmission fluid</li> <li>Pump primer fluid</li> <li>Drive axle fluid</li> <li>Air conditioning refrigerant</li> <li>Power steering fluid</li> <li>Cab tilt mechanism fluid</li> <li>Transfer case fluid</li> <li>Equipment rack fluid</li> <li>Air compressor system lubricant</li> <li>Generator system lubricant</li> <li>Front tires air pressure</li> <li>Rear tires air pressure</li> </ul>		
SAFETY LABELS:		
SEAT BELT SIGN: An accident prevention sign stating, "Danger Personnel Must Be Seated And Seat Belts Must Be Fastened While Vehicle Is In Motion Or Death or Serious Injury May Result." shall be visible from each seating position.		
<b>SEATING CAPACITY SIGN:</b> A permanent sign shall be installed in the driver's compartment specifying the maximum number of personnel the vehicle is designed to carry (seating capacity) per NFPA standards. It shall be located in an area visible to the driver and shall read "SEATING CAPACITY (2)".		
OVERALL TRAVEL CLEARANCE PLATE: There shall be a travel clearance warning label located in the chassis cab. The travel clearance warning label to be located in easy view of the driver. The travel clearance warning label to include the following information: Overall travel clearance height in feet and inches.  Revision: August 2023  Page 3		

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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
<b>GVW SIGN:</b> The manufacturer shall supply the final manufacturer's furnished certification of GVWR and GAWR on a nameplate affixed to the vehicle.		
TYPE OF FUEL SIGN: A "Diesel Fuel Only" name tag shall be attached to fuel fill access door.		
NFPA COMPLIANCE		
After acceptance of the fire apparatus, the purchaser shall be responsible for ongoing training of personnel to develop and maintain proficiency regarding the proper and safe use of the apparatus and the associated equipment.		
It shall be the responsibility of the end user to procure all associated loose equipment as suggested by the NFPA standards for automotive fire apparatus.		
Special notice is given to the following areas that were changed in the 2016 revision. It is the responsibility of the successful bidder to be familiar with all applicable areas of NFPA. This list is not all-inclusive and shall not be construed as such.		
APPARATUS TOP SPEED		
The maximum top speed of fire apparatus with a GVWR over 26,000 lbs. (11,800 kg) shall not exceed either 68 mph (105 km/hr) or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.		
If the combined water tank and foam agent tank capacities on the fire apparatus exceed 1,250 gal. (4732 L), or the GVWR of the vehicle is over 50,000 lbs. (22,680 kg), the maximum top speed of the apparatus shall not exceed either 60 mph (85 km/hr.) or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.		
SEAT BELT INDICATORS		
A seat belt warning system shall be provided.		
The warning system shall consist of an audible warning device that can be heard at all seating positions designed to be occupied while the vehicle is in motion.		
The warning shall be activated anytime the parking brake is released or the automatic transmission is not in park.		*
ELECTRONIC STABILITY CONTROL		
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3,000 Gallon Pumper / Tanker		lder plies
SPECIFICATIONS	Yes	No
This vehicle is equipped with the Electronic Stability Control system (ESC) to meet the requirements of NFPA 1901, 2016 Edition Section 4.13.1.2.		
GENERAL WARRANTY		
The following warranty will be furnished. We warrant each new piece of Fire Apparatus to be free from defects in material and workmanship under normal use and service. Our obligation under this warranty is limited to repairing or replacing, as the Company may elect, any part or parts thereof which will be returned to us with transportation charges prepaid and as to which examination will disclose to the Company's satisfaction to have been defective, provided that such part, or parts will be returned to us no later than two (2) years after delivery of covered apparatus. Such defective part or parts will be returned or replaced free of charge and without charge for installation to the original purchaser.		
This warranty will not apply to:		
<ol> <li>Normal maintenance services or adjustments.</li> <li>To any vehicle which has been repaired or altered outside of the original manufacturing facility in any way so as, in the manufacturer's judgment, to affect its stability</li> </ol>		
<ol> <li>To any vehicle which has been subject to misuse, negligence, or accident</li> <li>To any vehicle made by us which will have been operated to a speed exceeding the factory rated speed or loaded beyond the factory rated load capacity.</li> <li>Commercial chassis and associated equipment furnished with chassis, signaling devices, generators, batteries, or other trade accessories as they are usually warranted separately by their respective manufacturers. This warranty is in lieu of all other warranties, expressed or implied.</li> </ol>		
<ol><li>All other representations as to the original purchaser and all other obligations or liabilities, including for incidental or consequential damage on the Company's behalf unless made in writing by the Company.</li></ol>		
PUMP WARRANTY		
Five (5) year (minimum) pump warranty to the original owner. This warranty varies by pump manufacturer.		
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3,000 Gallon Pump	3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS		Yes	No
TANK WARRANTY			
"Lifetime" warrant	y on the water tank.		
5 YEAR PAINT WA	RRANTY		
used in a normal cracking of painted	shall warrant each new fire and rescue apparatus manufactured by it, if and reasonable manner, against rust through, blistering, peeling, or surfaces for a period of five (5) years or 50,000 miles, parts & labor to the starting the day of final delivery.		
	c's obligation under this warranty is strictly limited to repairing or Company may elect any defective part.		
10 YEAR BODY & S	SUBFRAME WARRANTY		
and reasonable ma workmanship for a	shall warrant each new fire body manufactured by it, if used in a normal anner, against structural defects caused by defects in material, design, or period of ten (10) years or 100,000 miles, the parts & labor to the original the day of final delivery.		
CHASSIS			
Equal Or Equivaler Freightliner M2-10			
2-Door Commercia			
GVWR:	56,000 lbs.		
Front Axle:	16,000 lbs.		
Rear Axle:	40,000 lbs.		
Engine:	Cummins ISL9 350 hp.		
Transmission:	Allison 3000 EVS		
Wheels:	Aluminum Alcoa		
Color:	Bright RED		
PRINCIPLE DIMENS	SIONS (STANDARD SPECIFICATION)		
Overall Length:	33′ 04″		
Overall Height:	9' 06"		
C/A:	172"		
W/B:	240"		
Principle dimension optional equipmen	ns are configured for "Standard" specifications. Alterations to pump and it will affect the overall height and overall length of the vehicle.		
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3,000 Gallon Pumper / Tanker SPECIFICATIONS		der plies
		No
CHASSIS MODIFICATIONS (STANDARD SPECIFICATION)		
TRANSMISSION LOCK-UP EVS-3000 Equal or Equivalent to		
An electronic lock-up relay system shall be installed between the engine and transmission and the fire pump. The lock-up shall place the transmission into the 1:1 gear automatically for pump operations.	i i	
FRONT & REAR MUD FLAPS		
There shall be a pair of front and rear mud flaps installed at the rear of the fenders.		
REAR TOW EYES		
There shall be two (2) tow eyes, one (1) on each side. They shall be attached to the frame rails, located in the rear center, through the rear wall above the tailboard.		
EXHAUST SYSTEM		
The exhaust system supplied shall be in compliance with the latest EPA Emission standard.		
MASTER BATTERY SWITCH		
A master battery on/off switch with shall be provided in the cab, near the driver's door.		
BACK-UP ALARM		
One (1) Back up Alarm 97 DB shall be provided and installed at the rear of the unit. It shall be wired to activate when the transmission is placed in reverse.		
NFPA 1901 COMPLIANT PUMP		
The fire pump and related plumbing on the specified apparatus shall be installed in accordance with applicable NFPA 1901 guidelines at the time the contract was placed.		
SIDE PANEL MODULE		
A pump operator's side panel pump module shall be provided. It shall be assembled and mounted independently from both the chassis and the body to properly allow sufficient flexing and prevent component fatigue.		
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,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
The module shall be constructed using square aluminum tubing. The welded ends of the tubing shall be chamfered prior to welding and shall be ground smooth prior to finishing. <a href="SIDE PANELS">SIDE PANELS</a>		
The pump compartment module shall have left, and right-side pump panels constructed of polished stainless steel sheets. The side pump panels shall be removable.		
GAUGE PANEL		
The pump operator's upper gauge panel shall be located on the left side of the pump module above the main control panel. It shall be constructed of polished stainless steel sheets. It shall be horizontally hinged and shall have two latches.		
ACCESS PANEL		
There shall be a hinged upper access panel located above the main pump panel on the right side of the pump module. It shall be constructed from stainless steel. It shall be vertically hinged and shall have three latches.		
COLOR CODED LABELS		
A set of color coded and function described labels shall be provided on the apparatus for the pump operator's controls, gated inlets, discharge outlets, drains, intake gauge, and pressure gauges (as applicable). The labels shall be a high-quality plastic material with a durable adhesive on the back.		
PUMP PANEL LIGHT SHIELD – LEFT		
One (1) polished, extruded aluminum light shield assembly shall be provided above the left side pump panel area. There shall be a minimum of two (2) weather resistant lights installed within the shield. A switch, located on the pump operator's panel shall be provided to activate the lights.		
PUMP PANEL LIGHT SHIELD – RIGHT		
One (1) polished, extruded aluminum light shield assembly shall be provided above the right-side pump panel area. There shall be a minimum of two (2) weather resistant lights installed within the shield. A switch, located at the pump operator's panel shall be provided to activate the lights.		
PUMP COMPARTMENT LIGHTS		
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
One (1) LED light strip shall be provided inside the pump compartment area. Light shall be switched on the light itself. The lights shall have a minimum 20 candlepower.		
RUNNING BOARDS		
Running boards shall be installed on each side of the pump compartment module. The running boards shall be constructed of 1/8" embossed fire apparatus bright aluminum treadplate. Each shall be a minimum of approximately 11" deep x the width of the side panel module. The running boards shall have a 1-1/4" upward bend on the inside edge to act as a kick plate.		
The aluminum treadplate shall meet recommendations for slip resistant surfaces at the time of proposal. The running boards shall be attached to a frame mounted outrigger support structure. Each running board to have a 3" downward bend on the front and side faces with a 1" underside return for superior strength.		
HALE QFLO 1,250 GPM PUMP		
<ol> <li>The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis and have the capacity of 1,250 gallons per minute (U.S. GPM), NFPA-1901 rated performance.</li> </ol>		
<ol> <li>The entire pump shall be assembled and tested at the pump manufacturer's factory.</li> <li>The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.</li> </ol>		
4. The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance points as outlined by the latest NFPA Pamphlet No. 1901. Pump shall be free from objectionable pulsation and vibration.		
5. The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (2,069 bar). All metal moving parts in contact with water shall be of high-quality bronze or stainless steel. Pump utilizing		
<ul> <li>castings made of lower tensile strength cast iron will not be acceptable.</li> <li>6. Pump body shall be vertically split on a single plane for easy removal of entire impeller assembly including wear rings and bearings from the pump without disturbing piping or the mounting of the pump in chassis.</li> </ul>		
7. The pump body shall extend as one piece across the truck chassis from side mounting to side mounting and incorporate the discharge manifolding system with a minimum of (1) 4" ports and (9) 3" ports.		
8. Pump shaft to be rigidly supported by bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox, and they shall be		
splash lubricated.  Revision: August 2023 Page 9		

3,000 Gallon Pumper / Tanker		lder iplies
SPECIFICATIONS	Yes	No
<ol> <li>The pump shaft shall have: one (1) mechanical seal on the suction (inboard) side of the pump. The mechanical seal must be spring loaded, maintenance free and self-adjusting. Mechanical seal construction shall be a carbon sealing ring, stainless steel coil spring, Viton rubber cup, and a tungsten carbide seat.</li> <li>Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately</li> </ol>		
machined and individually balanced. The vanes of the impeller intake eyes shall be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.		
11. Impeller clearance rings shall be bronze, easily renewable without replacing impeller		
or pump volute body.  12. The pump shaft shall be heat-treated, electric furnace, corrosion resistant stainless for longer shaft life. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.		
GEARBOX		
<ol> <li>The pump gearbox shall be of sufficient size to withstand up to 16,000 lb./ft (7,257 kg/m) of drive through torque of the engine system. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.</li> </ol>		
2. The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2- ¾" (6.99 cm) in diameter, on both the input and output drive shafts. The drive shaft shall withstand the full torque of the engine.		
3. All drive and pump gears shall be manufactured of the highest quality electric furnace chrome nickel steel. All bores shall be ground to size, teeth integrated and hardened, to create an extremely accurate gear for long life, smooth, quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust.		-
<ol> <li>The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.</li> </ol>		
5. If the gearbox is equipped with a power shift, the shifting mechanism shall be a heat-treated, hard anodized aluminum power cylinder, with stainless steel shaft. An in-		
<ul> <li>cab control for rapid shift shall be provided that locks in road or pump.</li> <li>6. All apparatus' built with automatic transmissions shall be provided three (3) green warning lights to indicate to the operator(s) when the pump has completed the shift from road to pump position. The warning lights will be located as stated: two (2) in the truck driving compartment and one (1) on the pump operator's panel adjacent to the throttle control. For manual transmissions, one (1) green warning light will be provided for the driving compartment. All lights shall have appropriate identification/instruction plates.</li> </ul>		
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3,000 Gallon Pumper / Tanker		Bid Com	der plies
SPECIFICATIONS		Yes	No
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
CERTIFICATION		
The pump will perform and meet the following tests: 100% of rated capacity @150 PSI net pump press. 100% of rated capacity @ 165 PSI net pumps press. 70% of rated capacity @ 200 PSI net pump press. 50% of rated capacity @ 250 PSI net pump press.		
Pump shall be tested at manufacturer under full NFPA suction conditions.		
PRIMING PUMP		
The priming pump shall be a positive displacement, oil-less rotary vane electric motor driven pump conforming to NFPA-1901 rated performance requirements. The pump body shall be manufactured of heat-treated anodized aluminum for wear and corrosion resistance.		
The pump shall be capable of producing a minimum of 24 Hg vacuum at 2,000 feet (609.6m) above sea level. The electric motor shall be a 12 VDC totally enclosed unit.		
The priming pump shall not require lubrication. The priming pump shall operate by a single pull control valve mounted on the pump operator's panel. The control valve shall be manufactured of bronze construction.		
<u>6" STEAMER INLETS</u>		
Two 6" (15.24cm) steamer inlets will be provided, one (1) on the left side and one (1) on the right side. Both inlets shall have long handle chrome vented caps and a screen.		
RELIEF VALVE		
There shall be one (1) suction side stainless steel relief pump valve provided on the pump system.		
PUMP CERTIFICATION TEST PLATE		
A permanently affixed plate shall be installed at the pump operator's position that will provide the rated discharge and pressures together with the speed of the engine as determined by the certification test for each unit, the position of the parallel/series pump used, and the no load governed speed of the engine as stated by the engine manufacturer on a certified brake horsepower curve.		
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
DISCHARGE VALVES		
The valves including the ball shall be constructed of brass or stainless steel. The valves shall be bi-directional with full flow capability. The valves shall be of fixed pivot ball design with a flow pressure rating to meet NFPA-1901 standards. The valve shall have a single piece seat and seal design and shall have an operating pressure of 400 psi. All 2.5" (6.35cm) discharge valves shall be supplied with a true slow close mechanism per NFPA specifications. The valve shall be warranted for a period of ten (10) years on all stainless-steel components, against defects in design and manufacturing processes.		
PIPING AND MANIFOLDS		
All the plumbing and/or piping in the pump module shall be of 304 stainless steel or flexible piping for long life. All stainless-steel castings shall be a minimum of schedule 40. All NPT pipe thread connections larger than ¾" connections shall be avoided in the construction of the plumbing system. The following valves shall have groove connection: rear discharge, tank fill, all 2" and 2-½" (5.08 and 6.35cm) pre-connect valves.		
The flexible piping shall be black SBR synthetic rubber hose with 300 working pounds and 1,200 pounds burst pressure for sizes 1.5 through 4". Sizes ¾", 1" and 5" are rated at 250 pound working and 1000-pound burst pressure. All sizes are rated at 30 HG vacuum. Reinforcement consists of two plies of high tensile strength tire cord for all sizes sand helix wire installed in sizes 1 through 5" for maximum performance in tight bend applications. The material has a temperature rating of –40 degrees F to 210 degrees F.		-
Full flow couplings are precision machined from high tensile strength stainless steel. All female couplings are brass. ¾" and 1" male and Victaulic couplings are brass.		
PUMP COOLER and ENGINE COOLER VALVES		
An engine cooler and pump cooler valve shall be installed in the instrument panel. The valves shall be a 1/4" multi-turn valve installed thru the instrument panel and labeled.		
MASTER PUMP DRAIN Equal or Equivalent to		
The pump shall be equipped with a Class 1 Master Pump drain to allow draining of the lower pump cavities, volute and selected water carrying lines and accessories. The drain shall have an all-brass body with a stainless-steel return spring.		
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
U.L. TEST POINTS		
Two (2) U.L. test points shall be mounted on the pump panel for testing of the vacuum and pressures. The test points shall be a single piece with individual ports for suction and discharge.		
VALVE CONTROLS		
Locking side mount controls shall be provided for valve actuation. The chrome plated zinc handles shall have a recessed area for 2" (5.08cm) round identification tags. The controls shall be locked in any position.		
DISCHARGE GAUGES		
Individual Class 1 2-½(6.35cm) line gauges for each 2" (5.08cm) or larger discharge shall be provided and mounted adjacent to the discharge valve control handle. The gauges shall indicate pressure from 0 to 400 PSI. The pressure gauge shall be fully filled with pulse and vibration dampening Interlube® to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to minus 40 degrees F. To prevent internal freezing and to keep contaminants from entering the gauge, the stem and Bourdon tube.		
The discharge gauges shall be filled with low temperature material and be sealed from the water system using an insulating Sub Z diaphragm located in the stem. A colored bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.		
INDIVIDUAL DRAINS		
All 2" (5.08cm) or larger discharge outlets shall be equipped with a $\%$ " ball valve drain valve or larger.		
LEFT SIDE FRONT DISCHARGE		
One (1) 2-½" (6.35cm) discharge with a stainless-steel valve shall be located on the left side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The $2-\%$ " (6.35cm) outlet shall be equipped with an integral, stainless steel, 30-degree elbow terminating with $2-\%$ " (6.35cm) NH threads. A chrome vented cap and chain shall also be supplied. The valve shall be controlled at the pump panel with a top mount control. There shall be a Class 1 2 $\%$ " pressure gauge mounted on the panel near the control to indicate pressure. The discharge shall also come equipped with a quarter-turn $\%$ " drain valve. The discharge must be capable of flowing 700 GPM or greater.		
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3,000 Gallon Pumper / Tanker	Bid Com	
SPECIFICATIONS	Yes	No
LEFT SIDE REAR DISCHARGE		
One (1) $2-\%$ " (6.35cm) discharge with a stainless-steel valve shall be located on the left side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The $2-\%$ " (6.35cm) outlet shall be equipped with an integral, stainless steel, 30-degree elbow terminating with $2-\%$ " (6.35cm) NH threads. A chrome vented cap and chain shall also be supplied. The valve shall be controlled at the pump panel with a top mount control. There shall be a Class 1 2 $\%$ " pressure gauge mounted on the panel near the control to indicate pressure. The discharge shall also come equipped with a quarter-turn $\%$ " drain valve. The discharge must be capable of flowing 700 GPM or greater.		
LEFT SIDE AUXILIARY SUCTION		
One (1) 2-½" (6.35cm) intake with a stainless-steel valve shall be located on the left side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The valve shall be controlled at the pump panel with a top mount control. The valve shall come equipped with a chrome plug, chain, inlet strainer, 2-½ (6.35 cm) FNH chrome inlet swivel and ¾" drain valve.		
RIGHT SIDE FRONT DISCHARGE		
One (1) $2-\%$ " (6.35cm) discharge with a stainless-steel valve shall be located on the right-side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The $2-\%$ " (6.35cm) outlet shall be equipped with an integral, stainless steel, 30-degree elbow terminating with $2-\%$ " (6.35cm) NH threads. A chrome vented cap and chain shall also be supplied. The valve shall be controlled at the pump panel with a top mount control. There shall be a Class 1 2 $\%$ " pressure gauge mounted on the panel near the control to indicate pressure. The discharge shall also come equipped with a quarter-turn $\%$ " drain valve. The discharge must be capable of flowing 700 GPM or greater.		
RIGHT SIDE REAR DISCHARGE		
One (1) 2-½" (6.35cm) discharge with a stainless-steel valve shall be located on the right-side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The 2-½" (6.35cm) outlet shall be equipped with an integral, stainless steel, 30-degree elbow terminating with 2-½" (6.35cm) NH threads. A chrome vented cap and chain shall also be supplied. The valve shall be controlled at the pump panel with a top mount control. There shall be a Class 1 2 ½" pressure gauge mounted on the panel near the control to indicate pressure. The discharge shall also come equipped with a quarter-turn ¾" drain valve. The discharge must be capable of flowing 700 GPM or greater.		
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
DECK GUN PLUMBING, 3"		
A 3" deck pipe shall be installed above the pump in such a manner that a monitor can be mounted and used effectively. The piping shall be installed securely so no movement develops when the line is charged. The piping shall terminate with 3" NPT threads and a 4-bolt flange for mounting a monitor. The 3" valve shall be lever controlled from the operator's panel.		
TANK FILL		
One (1) 2"(5.08cm) discharge with a stainless-steel valve shall be plumbed to the tank. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The 2"(5.08cm) valve outlet terminates with 2"(5.08cm) grooved connection. The valve shall be controlled at the pump panel with a top mount control.		
CROSSLAYS - 1 ¾"		
Two (2) double lay crosslays shall be installed on apparatus. Each section of the crosslay shall hold 200' of 1-3/4" double jacket fire hose. A 1-1/2" mechanical swivel hose connector shall be used in each crosslay to provide access of hose in either direction. Each crosslay shall have one (1) 2" (5.08cm) stainless steel valve. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The 2"(5.08cm) valve outlet terminates with 2"(5.08cm) grooved connection. The discharge shall be plumbed to the crosslay trays using 2" (5.08cm) schedule 10 stainless steel pipe. The pipe shall terminate in a stainless-steel swivel with 1 ½" (3.81cm) NH thread. The swivel shall allow the hose to be pulled from either side of the apparatus. The pipe shall be held in place by a 2-piece stainless steel bracket. Each valve shall be controlled at the pump panel with a top mount control. There shall be a Class 1 2 ½" pressure gauge mounted on the panel near each control to indicate pressure. Each discharge shall also come equipped with a quarter-turn ¾" drain valve. Each discharge shall be foam capable. Each discharge must be capable of flowing 180 GPM or greater.		
CROSSLAY COVER Equal or Equivalent to A hypalon cover will be provided.		
TANK TO PUMP		
One (1) 3" (7.62cm) valve shall be installed between the water tank and the pump. The valve shall be a quarter turn ball type. The valve shall be actuated with a manual pull handle.		
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3,000 Gallon Pumper / Tanker	Bid Com	der plies
PECIFICATIONS	Yes	No
MASTER GAUGES Equal or Equivalent to Class 1 4-½(11.43cm) gauges shall be provided. The master discharge gauge shall indicate pressure from 0 to 600 PSI. The master intake gauge shall indicate pressure from -30hg to 600 PSI. The gauges shall be Interlube filled pressure gauges and handle pressures from 0 to 600 PSI. The pressure gauge shall be fully filled with pulse and vibration dampening interlube® to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to minus 40 degrees F. To prevent internal freezing and to keep contaminants from entering the gauge, the stem and Bourdon tube shall be filled with low emperature material and be sealed from the water system using an insulating Sub Z diaphragm located in the stem.		
TPG PRESSURE GOVERNOR SYSTEM  Equal or Equivalent to  The apparatus shall be equipped with the Class1 TPG Pressure Governor System.		
The Total Pressure Governor (TPG) is an SAE J1939 Controller Area Network (CAN) device that controls engine speed using data communications directly to the engine ECU or with an analog control signal. By operating on the J1939 network, the governor is able to monitor engine RPM and other pertinent data directly from the engine ECU. Engine information is available directly so that NFPA required instrumentation is delivered through a single unit saving panel space and delivering engine specific warnings as determined by each engine manufacturer. Control algorithms are optimized to take advantage of the J1939 CAN data to yield crisp and accurate control of engine and subsequently pump speed and pressure output. On units with starting with software version 7.xx the Governor when first installed and powered will step through a CAN Auto BAUD rate detection sequence. Once the Governor determines which BAUD rate the CAN bus is running on it will save it to memory. For engines that may not support the data link control, an analog output signal is available to provide precise control of the engine speed and pressure.		
The Total Pressure Governor (TPG) comes standard with integrated engine instruments battery voltage, coolant temperature, oil pressure and engine RPM). It utilizes the J1939 CAN bus for engine control and has an analog throttle output for those engines that do not support CAN control. It has easy-to-read alphanumeric displays and programmable presets. The integrated alarm output provides a warning whenever anything is out of parameters.		
FANK LEVEL GAUGE Equal or Equivalent to The apparatus shall be equipped with a Class1 "Intelli-Tank" Tank Level Gauge for indicating water or foam level. The Tank Level Gauge shall indicate the liquid level on an easy to read LED display and show increments of 1/8 of a tank.		

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Each tank level gauge system shall include:

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3,000 Gallon Pumper / Tanker	Bid Com	
SPECIFICATIONS	Yes	No
<ol> <li>A pressure transducer that is mounted on the outside of the tank in an easily accessible area. Sealed foam tanks will require zero pressure vacuum vents.</li> <li>A super bright LED 4-light display with a visual indication at nine accurate levels.</li> <li>A set of weather resistant connectors to connect to the digital display, to the pressure transducer and to the apparatus power.</li> </ol>		
WATER TANK		
The water tank shall have a capacity of <b>3,000 U.S. Gallons</b> . Certification of the tank capacity shall be recorded on the manufacturer's record of construction and shall be provided to the purchaser upon delivery of the apparatus.		
The rear of the tank shall have a water level indicator. A sight tube or electronic indicator shall be acceptable based on the design approved by the tank manufacturer.		
POLY TANK CONSTRUCTION		
The Poly-Tank shall be constructed of a minimum of 1/2" thick polypropylene sheet stock. The rear wall of the tanker shall be a minimum of 1" thick. This will provide a solid surface for mounting steps, lights, handrails, and other requested options. A tank with a rear wall thickness of less than 1" will be cause for immediate rejection. This material shall be a noncorrosive stress relieved thermoplastic, natural in color, and U.V. stabilized for maximum protection.		
The tank shall be designed and manufactured with the ability to deliver 100% of the tanks rated capacity from each dump valve while on level ground. Tanks whose total discharge capacity cannot be achieved while on level ground through the side or rear dump valves independent of each other will not be considered.		
TANK		
The "Wetside" <b>3,000 Gallon tank</b> shall be of a specific configuration and shall be so designed to be completely independent of the body and compartments. All joints and seams shall be nitrogen or equivalent welded and tested for maximum strength and integrity. The top of the booster tank shall be fitted with removable lifting eyes designed with a 3 to 1 safety factor to facilitate easy removability.		
TANK FINISH		
The tank shall be painted single color to match the apparatus chassis.		
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3,000 Gallon Pumper / Tanker	1.0000000000000000000000000000000000000	der iplies
PECIFICATIONS	Yes	No
ANK BAFFLES		
The transverse swash partitions shall be manufactured of a minimum of 3/8" polypropylene natural or black in color) and extend from approximately 4" off the floor to just under the over. The longitudinal swash partitions shall be constructed of a minimum of 3/8" polypropylene (natural or black in color) and extend to the floor of the tank through the over to allow for positive welding and maximum integrity. All partitions shall be equipped with sufficient vent and air holes to permit sufficient movement of air and water between compartments. The partitions shall also be designed to provide maximum water flow. All wash partitions shall interlock with one another and be welded to each other as well as to he walls of the tank.		
ANK SUMP		
There shall be one (1) sump in the bottom of the water tank. The sump shall be constructed of a minimum of 1/2" polypropylene and shall be located in the left front quarter of the tank unless otherwise specified. On all tanks that require a front suction, a 4" schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the ank at or near the sump location. The sump shall be used as a combination clean-out and drain. All tanks shall have an anti-swirl plate located approximately 2" above the sump to pre-vent air from being entrained in the water while pumping.		
ANK FILL CONNECTION		
All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank and shall be capable of withstanding sustained fill rates of up to 1,000 GPM.		
TANK LID		
The tank lid shall be constructed of a minimum of 1/2" thick polypropylene to incorporate a multi three-piece locking design which allows for individual removal and inspection if necessary. The tank lid shall be recessed 3/8" from the top of the tank and shall be welded to both sides and longitudinal partitions for maximum integrity. Each one of the lids shall nave hold downs consisting of 2" polypropylene dowels or baffle tabs spaced a maximum of 80" apart. These dowels and baffle tabs shall extend through the covers and shall assist in seeping the covers rigid under fast filling conditions. A minimum of two lifting dowels shall be drilled and tapped 1/2" x 13" to accommodate the lifting eyes.		
TANK MOUNTING		
The Poly-Tank shall rest on the body cross members in conjunction with such additional cross members, as required by the tank manufacturer.		
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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
The tank shall be isolated from the cross members through the use of 1.5" poly strips. Additionally, the tank shall be supported around the entire perimeter and captured both front and rear as well as side to side to prevent the tank from shifting during vehicle operation.		
Although the tank shall be designed on a free-floating suspension principle, it shall be required that the tank have adequate hold down restraints to minimize movement during vehicle operation.		
The tank shall be completely removable without disturbing or dismantling the apparatus structure.		
WATER TANK FILL TOWER		
The tank shall have a combination vent and manual fill tower, marked "Water Fill." The fill tower shall be constructed of 1/2" polypropylene and shall be a minimum dimension of 14" x 14" at the outer perimeter. The tower shall be located in the <u>center</u> of the tank. Fill towers located at the front or rear of the tank shall no be permitted due to the increased chance of spillage during operation which could cause a hazardous environment under certain conditions. The tower shall have a 1/4" thick removable polypropylene screen and a polypropylene hinged-type cover.		
TANK OVERFLOW		
The tank shall be equipped with a minimum of a 6" schedule 40 polypropylene overflow / air vent pipe. The pipe shall be installed in the fill tower and extend through the tank and dump to the rear of the rear axle.		
HOSEBED		
A hosebed with storage dimensions of approximately 210" L x 70" W will be provided.		
HOSEBED COVER  Equal or Equivalent to  A hypalon cover will be provided.		
REAR DUMP VALVES  Equal or Equivalent to  One (1) 10" stainless steel Newton Quick Dump Valve, Model # 1070-34 shall be installed at the rear of the tank. The valve shall be electrically operated from the rear of the approximation.		
the rear of the tank. The valve shall be electrically operated from the rear of the apparatus.  A stainless-steel Newton Model # 6021SW-34 180-degree swivel dump chute shall be installed.		
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000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
The chute shall include a stainless-steel Newton 4036-34 telescopic extension to allow the chute to extend past the body side for dumping.		
The water tank design shall include additional support for the chute.		
The tank and dump chute shall be installed high enough to dump into a standard thirty (30)" tall dump tank.		
REAR DIRECT TANK FILLS Equal or Equivalent to		
There shall be two (2) external 2.5" direct tank fill ports furnished on the rear of the apparatus, (1) each side. The tank fills shall have 2.5" Akron Brass valves with built-in 30-degree elbow and manual swing type control handles located on each valve. A chrome plug and chain shall be supplied and installed on each valve.		
BODY SUB-STRUCTURE		
The body and compartment sub structure shall be an all-welded steel structure and bolted to chassis frame. Ultimate strength shall be accomplished with 1-1/2" x 3" x 3/16" structural channel members extended across chassis frame.		
In addition, there shall be 1-1/2" x 3" x 3/16" structural channel connecting the front and rear sub structure transverse members for additional strength and to form a full perimeter base for supporting the booster tank. Hangers and brackets shall be reinforced at all corners with gussets to prevent potential sag and warp over an extended period of fire service operations.		
The sub-structure shall be coated with Linex, Rhino Liner, or a polyurethane type of material. Substructures that are just primed and painted shall not be permitted.		
The tank frame and compartment sub-assembly shall be supported by using two 4" x 3" structural steel longitudinal support members.		
There shall be a minimum of two (2) 1-1/2" x 3" x 3/16" structural steel channel affixed to the sub-assembly for the compartment downriggers. Each compartment shall be supported 3" X 3" steel channel with corner gussets.		
A minimum of twelve (12) ¾" Grade 8 bolts shall attach the compartment sub-assembly to the vehicle chassis.		
The tank cradle, compartment sub-assembly shall be continuously welded to form an unprecedented body support system.		
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000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
BODY CONSTRUCTION		
The body compartments shall be fabricated entirely of aluminum extrusions and flat sheet material to offer a superior strength to weight ratio. Each compartment shall be welded on all exterior front seams with MIG spot welds on the rear and interior seams for maximum strength. All major structural mounting bolts shall be grade five type with locking style nuts.		
All mounting bolts shall be stainless steel ¼" with nylon lock nuts for rust prevention and a lasting appearance while providing maximum strength. All fasteners shall be easily removed with standard tools. Wherever possible, all fasteners shall have locking style nuts or shall be threaded into panel and locked by an acorn nut, to eliminate loosening fasteners.		
All screws that do not have locking nuts shall have threads coated with Loctite. Acorn nuts shall be used throughout the body to prevent the possibility of snags and injuries, including fasteners which protrude into compartments and hosebed.		
The entire body shall be painted with the exception of areas where polished aluminum treadplate is utilized. Bodies that are fabricated entirely of polished aluminum treadplate or other non-painted surfaces shall not be permitted due to increased upkeep and the increased chance of corrosion.		
SWEEP-OUT CONSTRUCTION		
All side body compartments shall have sweep out type floors. All compartments shall be made to the largest practical dimensions to provide maximum storage capacity for fire department equipment. Compartments that are fabricated without a "Sweep Out" design shall be immediately rejected.		
ROLL UP DOOR CONSTRUCTION		
All doors shall be ROM roll up doors or equal.		
COMPARTMENT DOOR FINISH		
Compartment roll up doors shall have a satin finish.		
REAR FENDERS & FENDERWELLS		
Two (2) polished aluminum treadplate style rear fender assemblies shall be included on each side of the vehicle over the wheels of the rear axle.		
Two (2) Stainless fenderettes shall be provided and installed around each wheel well.		
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3,000 Gallon Pumper / Tanker	Bidder Complies	
SPECIFICATIONS	Yes	No
RUNNING BOARDS		
Running boards shall be fabricated of 3/16" polished aluminum diamond treadplate, supported by the structural steel sub-frame. The running boards when apparatus is fully loaded shall have a maximum ground clearance of 24" when sitting on a level surface. They shall be flanged down to provide added strength and rigidity and to prevent injury while washing the apparatus. All stepping surfaces shall be in compliance with the latest version of all applicable NFPA standards.		
REAR TAILBOARD		
The rear step shall be constructed of 3/16" polished aluminum diamond treadplate and supported by the structural steel sub-frame. The tailboard when apparatus is fully loaded shall have a maximum ground clearance of 24" when sitting on a level surface. The tailboard shall be flanged down to provide added strength and rigidity and to prevent injury while washing the apparatus. The rear step shall be spaced away from body a minimum of 1/4".		

# INTERMEDIATE ACCESS PLATFORM

There shall be an intermediate access platform installed at the rear of the apparatus and shall extend the full width of the tank. The platform shall be a minimum of 10" deep and shall be supported by a minimum of six (6) supports and shall be an integral part of the tank assembly. The platform shall be covered in 3/16" polished aluminum diamondnette treadbright aluminum.

The rear step shall be 18" deep and run the entire width of the apparatus. All stepping

surfaces shall be in compliance with the latest version of all applicable NFPA standards.

The intermediate platform shall be located 18" below the hosebed floor.

#### **ACCESS LADDER**

There shall be an access ladder extending from the rear tailboard to the intermediate platform and shall be located at the left-rear area of the apparatus.

#### **HANDRAILS**

All handrails used on apparatus shall be 1-1/4" diameter aluminum tube with ribbed rubber inserts supported at each end by a chrome plated stanchion. All handrails shall be designed and mounted to reduce the possibility of injury to personnel and equipment. Drain holes shall be provided in the bottom of all vertically mounted assist handles. Handrails shall be installed in the following locations:

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3,000 Gallon Pumper / Tanker		der plies
SPECIFICATIONS	Yes	No
Two (2) 24" vertical handrails shall be installed on the left and right side at the rear.  FOLDING TANK STORAGE  Equal or Equivalent to		
A "EZ Load" folding tank rack shall be provided over the right-side compartments. The rack shall be fabricated on top of the right-side compartments. It shall be large enough to transport a 3,100 gallon folding tank.		
FOLDING TANK  Equal or Equivalent to  One (1) 3,000-gallon capacity Husky brand folding tank shall be supplied. The tank shall feature a tubular aluminum frame with 22-ounce vinyl sides and 30-ounce vinyl floor.		
BODY COMPARTMENTS		
L1: Street Side, forward of axle Interior Dimensions: 60" W x 27" H x 24" D Door Opening: 53.5" W x 20" H	8	
L2: Street Side, rearward of axle Interior Dimensions: 28" W x 27" H x 24" D Door Opening: 21.5" W x 20" H		
R1: Curb Side, forward of axle Interior Dimensions: 60" W x 27" H x 24" D Door Opening: 53.5" W x 20" H		
R2: Curb Side, rearward of axle Interior Dimensions: 28" W x 27" H x 24" D Door Opening: 21.5" W x 20" H		
ELECTRICAL STANDARDS		
All electrical equipment shall meet SAE standards. All lighting and reflectors shall meet Federal Motor Vehicle Standards.		
The apparatus wiring shall be color and function coded.		
The optical warning devices shall be constructed or arranged to avoid the projection of light either directly or through mirrors into any driving or crew compartments.		· ·
Illumination shall be provided for controls switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus and the equipment provided on it.		
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3,000 Gallon Pumper / Tanker	Bid Com	
SPECIFICATIONS	Yes	No
Where external illumination is provided, it shall be a minimum of 5 foot-candles on the face of the device. Where external illumination is provided, it shall be a minimum of 4-foot candles.		
Hydraulic lines, air system tubing, control cables, and electrical lines shall be clipped to the frame or body structure of the apparatus and shall be furnished with protective heat looms and/or grommets at each point where they pass through body panels or structural members.		
All relays and circuit breakers shall be "plug in" type for easy replacement. All components shall be protected against corrosion, heat, vibration, and moisture. The relay panel shall be installed in the cab on the floor, between the seats and have an easily removable, aluminum cover. Relay panels mounted in compartments shall not be permitted due to the increased risk of damage from moisture.		
CAB CENTER CONSOLE  Equal or Equivalent to  A Jotto Desk console tower shall be installed between the driver and officer seats. The tower shall house the following components.		
<ul> <li>Door Ajar Indicator</li> <li>Siren Controller with Switches</li> <li>One (1) Blank panel for customer installed radio components</li> </ul>		
<u>DOT LIGHTING</u>		
Two (2) amber and two (2) red side body running lights shall be provided and mounted, one (1) amber and one (1) red on each side. There shall be one (1) amber turn signal light with protective covers furnished and mounted in front of the axle since it is 32.5" long. There shall be five (5) lights located on the rear of the vehicle. Three (3) of the lights shall be in the tailboard area for use as identification lamps. Two (2) lights shall be provided on top of the tank, located as high and wide as possible, one (1) each side, for use as clearance lamps. All required reflectors shall be bolted onto body.		
COMPARTMENT LIGHTING		
Two (2) LED strip lights shall be provided in Compartments L1 / R1.		
One (1) LED strip light shall be provided in Compartment L2 / R2.		
DOOR OPEN HAZARD LIGHT		
There shall be a flashing red light located on the Jotto Desk in clear view of the driver. This  Revision: August 2023 Page 25		

3,000 Gallon Pumper / Tanker	25 20000	der plies
SPECIFICATIONS	Yes	No
light shall be illuminated automatically whenever any passenger or equipment compartment door is open. The light shall be marked "Do Not Move Apparatus When Light Is On".		
LICENSE PLATE LIGHT		
A license plate bracket with light shall be provided and installed on the left-hand rear of the body. It shall be wired to come on with the headlights.		
UNDERBODY/CAB GROUND LIGHTS  Equal or Equivalent to  Six (6) Truck-Lite 4" clear ground illumination lights, with outward facing angle brackets shall be provided and installed. Two (2) shall be located under the cab doors, two (2) under the pump module and two (2) shall be located to light the rear tailboard area. The lights shall activate with the parking brake.		
BACK UP CAMERA SYSTEM Equal or Equivalent to		
One-(1) color camera system shall be installed on the vehicle. The system shall be wired to the vehicles 12-volt electrical system. The color monitor shall be installed in the cab in easy reach of the driver while in the seated position. The color camera shall be installed facing rearward giving a clear and unobstructed view behind the rear of the vehicle. The system shall activate when the transmission is shifted into the reverse position.		
The system shall consist of the following components:		
<ul> <li>One 7" LCD color monitor</li> <li>One color camera with weather and vibration proof housing</li> <li>65' extension cable</li> </ul>		
EMERGENCY LIGHTING		
NFPA-1901 Emergency lighting shall consist of:		
CAB UPPER ZONE A WARNING LIGHTS		
Equal or Equivalent to  One (1) Whelen #W-IX2RRRR Liberty II 54" lightbar shall be installed on the cab roof.		
LOWER ZONE A WARNING LIGHTS		
Equal or Equivalent to		
Two (2) TecNiq K60-RC00 Auto Sync RED LED warning lights with clear lens and chrome K60-		
	1	1
1C00-1 bezel shall be mounted on the chassis grille.  Revision: August 2023 Page 26		

3,000 Gallon Pumper / Tanker	Bid Com	der plies
SPECIFICATIONS	Yes	No
LOWER ZONE B/D WARNING LIGHTS Equal or Equivalent to		
Two (2) TecNiq K60-RC00 Auto Sync RED LED warning lights with clear lens and chrome K60-1C00-1 bezel shall be mounted mid-ship of the body in the area of the rear wheels.		
UPPER ZONE B/D WARNING LIGHTS Equal or Equivalent to		
Two (2) TecNiq K60-RC00 Auto Sync RED LED warning lights with clear lens and chrome K60-1C00-1 bezel shall be mounted on the side upper front corners of the tank.		
Two (2) TecNiq K60-RC00 Auto Sync RED LED warning lights with clear lens and chrome K60-1C00-1 bezel shall be mounted on the side upper rear corners of the tank.		
LOWER ZONE C WARNING LIGHTS Equal or Equivalent to		
Two (2) TecNiq K60-RC00 Auto Sync RED LED warning lights with clear lens and chrome K60-1C00-1 bezel shall be mounted in the rear quad taillight assemblies on the rear of the apparatus.		
UPPER ZONE C WARNING LIGHTS Equal or Equivalent to		
Two (2) TecNiq K60-RC00 Auto Sync RED LED warning lights with clear lens and chrome K60-1C00-1 bezel shall be mounted, one each side of the upper rear corners of the tank.		
STOP/TURN/BACKUP LIGHTS Equal or Equivalent to		
Two (2) TecNiq K60-A2S0-1 LED steady burn AMBER with arrow mask turn signal light shall be installed in a chrome quad light bezel, one each side of the rear of the body.		
Two (2) TecNiq K60-STR0-1 LED steady burn RED rear tail/stop light shall be installed in a chrome quad light bezel, one each side of the rear of the body.		
Two (2) TecNiq K60-WUB0-1 LED steady burn CLEAR backup light shall be installed in a chrome quad light bezel, one each side of the rear of the body.		
UPPER ZONE B/D SCENE LIGHTS Equal or Equivalent to		
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3,000 Gallon Pumper / Tanker	Bid Com	
SPECIFICATIONS	Yes	No
Two (2) TecNiq K90-SW00-1 12 volt flush mounted LED scene lights shall be mounted on the side upper front corners of the tank.		
Two (2) TecNiq K90-SW00-1 12 volt flush mounted LED scene lights shall be mounted on the side upper rear corners of the tank.  UPPER ZONE C SCENE LIGHTS  Equal or Equivalent to		
Two (2) TecNiq K90-SW00-1 12 volt flush mounted LED scene lights shall be mounted on the rear upper rear corners of the tank.		
ELECTRONIC SIREN Equal or Equivalent to		
One (1) Whelen #W-295SLSA6 siren/control center shall be furnished and installed in the Jotto desk located between the driver and officer seating positions. The hard-wired noise-canceling microphone shall be installed on the Jotto desk within easy reach of the driver or officer. It shall have a two (2) year standard warranty from the manufacturer.		,
SIREN SPEAKER Equal or Equivalent to		
There shall be one (1) Whelen #W-SA315P black plastic 100-watt siren speaker furnished and installed in the front bumper.		
REFLECTIVE STRIPING Equal or Equivalent to		
One (1) 6" White Scotchlite stripe on each side, conforming to Federal Specification for Reflectivity, shall be provided down both sides of the cab and body. The reflective stripe shall cover at least at least 50 percent of the cab and body length on each side, at least 50 percent of the width of the rear, and at least 25 percent of the width of the front of the apparatus.		
STRIPE, REAR CHEVERON		
A minimum of fifty percent of the rear vertical surface of the unit shall be overlaid with a reflective material, installed in an alternating "Chevron" pattern (sloping down and away from the centerline) at a 45-degree angle. Each stripe shall be 6" wide and the colors of stripping shall be in compliance, with the current edition of NFPA 1901.		
Color: Red / Yellow		
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-,	on Pumper / Tanker		der oplies
SPECIFICA		Yes	No
TOUCH-U	P PAINT		
	er of touch-up paint will be provided to match the cab color.		
A contain	of touch-up paint will be provided to mater the east color.		
	Equivalent to		
apparatus	Il be two (2) 10' x 6" sections of PVC flexible suction hose supplied with the Lightweight aluminum couplings shall be provided on the suction hose. A long male swivel shall be provided on one end and a rocker lug male shall be provided her end.		
The suction	on hose shall be mounted on left side of body.		
SUCTION	STRAINER .		
One (1) 6'	Barrel strainer shall be provided.		
LOOSE EC	MIDMENT		
	QUIPMENT Equivalent to		
Equal of I	A CONTRACTOR CONTRACTO	1	
		1	1
The follov	ving loose equipment shall be provided.		
The follov QTY	ving loose equipment shall be provided.  ITEM		
	ITEM		
QTY	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder		
QTY 3.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe		
QTY 3.00 1.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe		
QTY 3.00 1.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext		
QTY 3.00 1.00 1.00 2.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext Fire Ext Mounts 20LB		
QTY 3.00 1.00 1.00 2.00 2.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext Fire Ext Mounts 20LB Hooligan Tool 30"		
QTY 3.00 1.00 1.00 2.00 2.00 1.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext Fire Ext Mounts 20LB Hooligan Tool 30" Truck Mounted Handheld Flashlight		
QTY 3.00 1.00 1.00 2.00 2.00 1.00 2.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext Fire Ext Mounts 20LB Hooligan Tool 30" Truck Mounted Handheld Flashlight Ball Intake Valve		
QTY 3.00 1.00 1.00 2.00 2.00 1.00 2.00	Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext Fire Ext Mounts 20LB Hooligan Tool 30" Truck Mounted Handheld Flashlight Ball Intake Valve 6"F to 4"Storz		
QTY 3.00 1.00 1.00 2.00 2.00 1.00 2.00 1.00	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder  Pick Head Axe  Flat Head Axe  20lb Fire Ext  Fire Ext Mounts 20LB  Hooligan Tool 30"  Truck Mounted Handheld Flashlight  Ball Intake Valve  6"F to 4"Storz  4.5 Hydrant to 4" Storz		
QTY 3.00 1.00 2.00 2.00 1.00 2.00 1.00 1.00	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder  Pick Head Axe  Flat Head Axe  20lb Fire Ext  Fire Ext Mounts 20LB  Hooligan Tool 30"  Truck Mounted Handheld Flashlight  Ball Intake Valve  6"F to 4"Storz  4.5 Hydrant to 4" Storz  4"X100' LDH Storz		
QTY 3.00 1.00 1.00 2.00 2.00 1.00 1.00 1.00 1	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder  Pick Head Axe  Flat Head Axe  20lb Fire Ext  Fire Ext Mounts 20LB  Hooligan Tool 30"  Truck Mounted Handheld Flashlight  Ball Intake Valve  6"F to 4"Storz  4.5 Hydrant to 4" Storz  hydrant gate valves 2.5		
QTY 3.00 1.00 1.00 2.00 2.00 1.00 1.00 1.00 1	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder  Pick Head Axe  Flat Head Axe  20lb Fire Ext  Fire Ext Mounts 20LB  Hooligan Tool 30"  Truck Mounted Handheld Flashlight  Ball Intake Valve  6"F to 4"Storz  4.5 Hydrant to 4" Storz  hydrant gate valves 2.5  6' Pike Pole		
QTY 3.00 1.00 2.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder Pick Head Axe Flat Head Axe 20lb Fire Ext Fire Ext Mounts 20LB Hooligan Tool 30" Truck Mounted Handheld Flashlight Ball Intake Valve 6"F to 4"Storz 4.5 Hydrant to 4" Storz 4"X100' LDH Storz hydrant gate valves 2.5 6' Pike Pole 10'Pike Pole		
QTY 3.00 1.00 1.00 2.00 2.00 1.00 1.00 1.00 1	ITEM  Hydrant Wrench set w/2 spanners Hydrant Wrench And Holder  Pick Head Axe  Flat Head Axe  20lb Fire Ext  Fire Ext Mounts 20LB  Hooligan Tool 30"  Truck Mounted Handheld Flashlight  Ball Intake Valve  6"F to 4"Storz  4.5 Hydrant to 4" Storz  hydrant gate valves 2.5  6' Pike Pole		

	on Pumper / Tanker		der plies
PECIFICA		Yes	No
1.00	Low Level 4" Strainer W/ Jet Siphon		
1.00	Hi Riser Deck Gun With Nozzle, Triple Stacked Tips		
1.00	Battery Charger W/ Auto Eject, 110v Plug, Installed		
2.00	3"x25' Double Jacketed Rubber lined Hose		
	ng: clude lease purchase with financing included, with options and 10 years with monthly payments.		
	y Time: y to be made within 8 months of qualified bid approval		
		1	