

The City of Mount Pleasant is taking bids for fire engine. Bid packages are available on our website at www.mountpleasanttn.org or in person at City Hall. Sealed bids must be received in the Finance Office no later than Monday, September 17, 2018 at 10:00 am. If you have questions, please contact Loretta Garner, CPA at (931) 379-7717. The City reserves the right to reject any and all bids and to waive informalities. The City does not discriminate on the basis of race, creed, color, national origin, sex, religion, age or disability status in employment or the provision of services.



CITY OF MT. PLEASANT

CITY HALL, 100 PUBLIC SQUARE, P. O. BOX 426

MOUNT PLEASANT, TN 38474

PHONE 931-379-7717 ♦ FAX 931-379-5418

Request for Bid

OPENING DATE

September 17, 2018

Fire Engine Request



CITY OF MT. PLEASANT

CITY HALL, 100 PUBLIC SQUARE, P. O. BOX 426
MOUNT PLEASANT, TN 38474
PHONE 931-379-7717 ♦ FAX 931-379-5418

INVITATION TO BID FIRE ENGINE, CITY OF MOUNT PLEASANT FIRE DEPARTMENT MOUNT PLEASANT, TENNESSEE

The City of Mount Pleasant will accept sealed bids for new fire engine. Sealed bids will be received by Loretta Garner, Director of Finance, Mount Pleasant City Hall, 100 Public Square, Mount Pleasant, TN 38474 until **10:00 am CST, Monday, September 17, 2018**, at which time all bids will be opened and publicly read. Copies of bid specifications may be obtained at Mount Pleasant City Hall, Monday-Friday, 8:00am-4:00pm, holidays excepted. The City of Mount Pleasant reserves the right to reject any or all bids and to waive technicalities therein and to award the bid in the City's best interest.

If you are an individual with a disability and require a reasonable accommodation or have additional questions regarding this invitation, please notify Mrs. Garner at (931)379-7717.

Bid Instructions:

To be considered, you must submit the following:

1. A complete bid sheet(s) as provided with this invitation
2. Warranty information and location of nearest service center with parts inventory
3. Other submissions as may be herein required
4. A written explanation of any and all instances where the bid equipment varies from that which is specified herein.

All forms must be signed by someone with the authority to bind the bidder.

All bid documents shall be returned to:

- Purchasing Agent, City Hall, 100 Public Square, Mount Pleasant, TN 38474
- Mark outside envelope with **Invitation to Bid Fire Engine** and opening date of: **September 17, 2018**

Time is of the essence and any bid received after the announced time and date for submittal, whether by mail or otherwise, will be rejected. The time of receipt shall be determined by the City Manager's Office. Bidders are responsible for ensuring that their bids are stamped by City

Manager's Office personnel before the deadline indicated. Late bids received will be noted in the bid file and the bid will be held unopened.

Nothing herein is intended to exclude any responsible vendor, his product or service or in any way restrain or restrict competition. On the contrary, all responsible vendors are encouraged to bid and their bids are solicited. All costs associated with the preparation or delivery of a response to this invitation shall be borne solely by the bidder. The City of Mount Pleasant is compliant with Title VI of the 1964 Civil Rights Act and as a result does not discriminate on the grounds of race, color, or national origin nor does it exclude from participation in, or denies the benefit of any program or activity receiving federal financial assistance.

General Conditions:

- a. **Acceptance of Bids:** The City of Mount Pleasant reserves the right to reject any and all bids, to waive any informal technicalities or defects, the scope and nature of which it shall be the sole judge, in any bid, insofar as such technicality or defects do not legally, materially or substantially change such bid. The said City, unless otherwise specified by the bidder, reserves the right to accept any item on bid.

If the bidder fails to state the time within which a bid must be accepted, it is understood and agreed that said City shall have ninety (90) days from bid opening date in which to accept bid.

- b. **Error in Bid:** In case of error in the extension prices in the bid, the unit price governs. No bid shall be altered, amended, or withdrawn, unless the acceptance date has expired, after the opening date of bids. Negligence on part of the bidder in preparing the bid confers no right for withdrawal of the bid after it has been opened.
- c. **Discount Period:** Time in connection with discount offered will be computed from the delivery date, or from the date correct invoices are received, whichever date is later. Discount other than "Time Discounts" shall be shown on the face of the proposal sheet under "Terms".
- d. **Signatures on Bids:** Each bid must contain the full name and business address of the bidder. Any person signing a proposal sheet for himself or as agent, employee, or officer of another must show his title and, if requested by the City shall furnish proof of his authority to make such proposal.
- e. **Alternate Bids:** Alternate bids will be considered providing such items that appear on such bids meet specifications. Where equivalent items are bid upon, said City reserves the sole right in determining whether they meet specifications.
- f. **Bid Sheets:** Bidders shall use the bid sheets furnished by the City. Failure to submit this sheet as required shall render the proposal invalid. Proposal sheets must contain prices on per unit and aggregate basis and the total amount of the bid must be stated on the proposal sheet.

- g. **Federal or State Sales, Excise or Use Tax:** Every bid shall separately state and set forth, therein the amount of any and all Federal and State sales, excise, or use tax included in the bid prices. If any such taxes are included in the prices bid, the City reserves the right in making the award to deduct any amount of such taxes thereof. Where labor is required, the bidder shall state separately the amount of labor and materials.
- h. **Compliance:** Contractor shall abide by all federal, state, and local laws and regulations.
- i. **Specifications:** It is understood that reference to attached specifications shall be sufficient to make the terms of such specifications binding on the contractor. In some instances, the name of the manufacturer, a special brand, or make of an item is used in describing the item or items desired; but this does not restrict the bidder to that manufacturer or specific article, this means being used simply to indicate the character or quality of the article or service desired; but the articles or service on which the proposal are submitted must be equal to that specified, and a statement to that effect shall be made a part of the proposal. Where conflict occurs between the requirement or the General Conditions and the specifications, the requirements of the specifications will govern.
- j. **Inspection:** Final inspection and acceptance or rejection will be made at the time of delivery, but all products and workmanship shall be subject to inspection and test at all times and places. The right is reserved to reject articles that contain defective material and workmanship. Rejected materials shall be removed by and at the expense of the contractor promptly after notification of rejection. The City shall not be obligated to pay the full price for any items that do not meet specification; however, payment may be made at a proper reduction price.
- k. **Bid Opening:** Bids may be mailed or delivered to the Executive Assistant in the City Manager's Office of the City of Mount Pleasant, Tennessee. All bids will be opened and publicly read at a time specified on the Proposal Sheet. Bids received after the specified time for opening, as shown on the invitation to bid, will not be accepted.
- l. **Cancellation:** The City reserves the right to cancel an accepted bid or contract in whole or in part due to nonperformance or defective products
- m. **Permit Requirements:** Successful bidder will be responsible for securing any necessary permits for complying with all required inspections whether local, state, or federal.
- n. **Multi-Year Contract:** The City reserves the right to enter into multi-year contracts and further has the right to terminate multi-year contracts due to non-appropriation of funds.

- o. **Term of Payment:** Payment will be made in full after the satisfactory receipt of goods, materials, supplies, and equipment. Payment will be made in full upon satisfactory completion of all contractual services, public improvements and/or construction. Executed contracts must specifically state if there is any partial payment or other deviation from this method of payment.

- p. **Engine Delivery:** The fully operational fire engine shall be delivered to the City of Mt. Pleasant within three hundred sixty (365) calendar days of the award of the contract.

- q. **Complaints – Vendors:** Vendors shall have the right to present a complaint, dispute or grievance concerning unfair treatment, contract, deliveries, payments, restrictions, and other incidents. The following steps are intended to provide uniform procedures for a vendor to express a problem and obtain a remedy.
 - a. **Step One**- Vendor must file a grievance with the Purchasing Agent no later than seven (7) calendar days after the occurrence of the dispute or incident. The complaint must be in writing and include all supporting data and desired solution or remedy. The Purchasing Agent will review the complaint with the user department and provide a written reply within forty-five (45) days to the vendor.

 - b. **Step Two**- If the vendor is not satisfied with the Purchasing Agent's response, the vendor may appeal in writing to the City Manager, who shall with the advice of the Purchasing Agent and/or City Attorney, make a written determination to all parties involved. The City Manager's decision shall be final.

One (1)	Mini Pumper - CrewCab (300 gal Tank)	Y__N__
One (1)	2019 Chassis, 4x4 SD Crew Cab XL - Four Standard Side Doors	Y__N__

CAB & CHASSIS

Chassis, Crew Cab

4x4 Crew Cab

Powertrain

Cummins 6.7L I-6 OHV diesel direct injection 24 valve intercooled turbo diesel engine **(NO EXECPTIONS TO THIS REQUIREMENT)** * 220 amp dual alternator * 730 amp battery with run down protection * Engine oil cooler, transmission oil cooler * 6-speed electronic sequential shift control automatic transmission with overdrive, lock-up, driver selection * Part-time four-wheel drive with manual transfer case shift, auto locking hubs * Limited slip differential, ABS & driveline traction control, power take-off provision * 4.88 axle ratio * Stainless steel exhaust

Steering and Suspension

Hydraulic power-assist re-circulating ball steering * 4-wheel disc brakes with front and rear vented discs * HD ride suspension, with electronic stability * Non-independent front suspension * Front leading link suspension * Front anti-roll bar * HD front coil springs * HD front shocks * Rigid rear axle * Rear leaf suspension * HD rear anti-roll bar * HD rear leaf springs * HD rear shocks * Front and rear 19.5" x 6.00" polished forged aluminum wheels with chrome hub covers * 225/70R19.5 BSW AS front tires * AT rear tires

Safety

4-wheel anti-lock braking system * Dual airbags, seat mounted driver and passenger side-impact airbags, airbag occupancy sensor * Front height adjustable seatbelts with front pre-tensioners * Sentry Key immobilizer, panic alarm

Comfort and Convenience

Air conditioning, underseat ducts * AM/FM/Satellite-prep, clock, seek-scan, external memory control, console mounted single remote CD, 6 speakers, fixed antenna * Cruise control with steering wheel controls * Power door locks with 2 stage unlock, keyfob (all doors) keyless entry, child safety rear door locks * 2 12V DC power outlets, retained accessory power * Analog instrumentation display includes tachometer, oil pressure gauge, engine temperature gauge, voltmeter gauge, oil temperature gauge, transmission fluid temp gauge, engine hour meter, systems monitor, redundant digital speedometer, trip computer, trip odometer * Warning indicators include oil pressure, engine temperature, battery, low oil level, low coolant, lights on, key, low fuel, low washer fluid, lighting malfunction, door ajar, service interval, brake fluid, turn signal on, transmission fluid temp * Steering wheel with tilt adjustment * Power front and rear windows with light tint, driver and passenger 1-touch down * Variable intermittent front windshield wipers * Passenger side vanity mirror * Day-night rearview mirror * Interior lights include dome light with fade, illuminated entry * Partial floor console with storage, glove box, front cupholder, instrument panel bin, dashboard storage, driver and passenger door bins, rear door bins * Upfitter switches

Seating and Interior

Seating capacity of 4 * 40-20-40 split-bench front seat with adjustable head restraints, delete center seat * 4-way adjustable driver seat * 4-way adjustable passenger seat * Two SCBA seats shall be installed in the rear cab crew area. One on each side with an open space between.
* Full cloth headliner, full vinyl/rubber floor covering, deluxe sound insulation, urethane gear shift knob

Exterior Features

1 skid plate, side impact beams, front license plate bracket, fully galvanized steel body material * Black fender flares * Black side window moldings, black front windshield molding * Black door handles * Chrome grille * 4 doors * Driver and passenger power remote black heated convex spotter folding manual extendable trailer outside mirrors with turn signal indicators * Front chrome bumper with front tow hooks * Aero-composite halogen fully automatic headlamps with multiple headlamps, delay-off feature * Additional exterior lights include cab clearance lights, remote activated perimeter/approach lights * Chrome tubular side steps * Clearcoat monotone paint

Warranty

Basic 36 month/36,000 miles
Powertrain 60 month/60,000 miles
Corrosion Perforation 60 month/unlimited mileage
Roadside Assistance 36 month/36,000 miles
Diesel Engine 60 month/100,000 miles

Front GAWR: 7,000 lbs
Rear GAWR: 13,500 lbs
GVWR: 19,500 lbs
Standard Crew Seating

One (1)

Y__N__

Interior and Seating

Seating capacity of 4

Driver Position

40-20-40 split-bench front seat with center seating position removed for the console.

Crew Seating Positions

Two SCBA seats shall be installed in the rear cab crew area. One on each side with an open space between.

Cab Console

One (1)

Y__N__

The driver/officer 40-20-40 split-bench front seat center seating position is removed to allow the installation of the center console.

CAB CONSOLE

A heavy-duty angled console shall be installed in the cab between the driver and officer seats. The console shall be finished in black powder coat for durability and low reflection. The console shall be designed with a versatile mounting rail system that accommodates commercially available panels for installation of items such as radio equipment. The design shall allow for a total of sixteen (16) inches of mounting space.

This option requires the center seating position to be removed from the cab.

The console shall contain the following items as standard:
Siren control head in a 3" Equipment Mounting Plate
Pump Shift in a 4" custom laminate panel
Three (3) Blank 3" Filler Plates

One (1) Back-Up Camera / GPS, Console Mounted Y__N__

BACK-UP CAMERA / GPS

There shall be supplied a Garmin NUVI 2798LMT combination back up camera and GPS. The seven (7) inch monitor screen shall be mounted onto the cab console utilizing a mounting system with the ability to have 360° adjustment without the use of tools. The GPS functionality of the unit shall be provided with lifetime Map updates. The camera shall be mounted recessed in the rear bumper.

One (1) Tire Pressure Monitoring Device - 2 Axles - LED Alert Y__N__

TIRE PRESSURE MONITORING DEVICE

Each tire installed on the apparatus shall be equipped with a tire pressure monitoring device. The device shall consist of a valve stem cap to with an LED tire alert to indicate tire pressure conditions. The LED will flash when the tire drops 8 psi below the factory setting.

One (1) Drivelines Y__N__

DRIVELINES

Universal joints and driveshafts shall be modified for midship pump installation. The driveshaft slip joints shall be coated to reduce sliding friction and thrust under high torque loads. Shafts shall be balanced to prevent vibration.

One (1) Heavy Duty Front Bumper / Brush Guard / Winch Receiver Y__N__

FRONT BUMPER / BRUSH GUARD / WINCH RECEIVER

The front of the chassis shall be equipped with a Fab Fours, model number FS11-S2550-1, heavy duty plate 'ranch' style bumper, or equivalent. The black painted assembly features a full replacement bumper with full grill guard and bolt on 2" receiver for portable winch operation.

One (1) Electronic Siren - Whelen - Model 295SLSA1 or equivalent Y__N__

ELECTRONIC SIREN

A Whelen electronic siren control, model 295SLSA1 full feature with 17 Scan-Lock siren tones including Radio Rebroadcast, Public Address, Manual, Wail, Yelp, Air Horn, Electronic Mechanical Siren tones and Piercer tones and hard wired microphone, shall be provided.

One (1) Speaker, Siren - 100w or equivalent Y__N__

SIREN SPEAKER

Behind the grille there shall be a Whelen model SA315 100 watt siren speaker.

One (1) Single Color Paint- Red or equivalent Y__N__

CAB PAINT

One (1) The cab on the vehicle shall be painted by the factory.
40 Amp - Battery Charger - ProMariner 1240 or equivalent Y__N__

BATTERY CHARGER

A PRO MARINER / ON BOARD SOLUTIONS, 1240, advanced electronic 4-step battery charger/power supply with a 40 amp output (or equivalent) shall be installed, under the driver's seat.

Since shoreline power is not always stable the charger shall be equipped with Auto-Ranging AC Input to automatically accept global voltages of 90 VAC to 270 VAC at 45-440 Hz.

Field Selectable - Use with lead/acid or gel batteries (AGM factory option). Select length of absorption charge cycle based on size of batteries.

In the 4-step charging system the charger will provide the following sequence.

Step 1: Fast Charge - Charger will deliver its maximum amperage rating to the connected batteries for the fastest charge (current regulation mode) until battery voltage is raised to 14.6V (lead acid factory setting). At this time, the ProTech will shift to step 2.

Step 2: Absorption Charge - Maximizes charge and holds voltage (voltage regulation mode) at 14.6V (lead acid factory setting) for 1 to 4 hours (selectable based on battery size), while letting the batteries determine the amount of amps they can accept. This mode creates activity in the batteries, reducing sulfate buildup, and conditions the batteries for an extended life. After the programmed 1 to 4 hours have elapsed, the ProTech will shift to step 3.

Step 3: Float Mode - A precision 13.3V (lead acid factory setting) finishing voltage that maintains each battery (step-down voltage regulation mode), which is perfect for short or long storage periods and will never overcharge your batteries. ProTech will deliver its full rated output for house loads including: lighting, electronics and pumps.

Step 4: Recycle - If there are very large loads on the battery while the charger is on, the unit will recycle to the first step, ensuring that batteries stay fully charged.

One-Year Warranty - Includes lifetime repair guarantee.
Certified to - UL Marine 1236/SA

One (1) The charger shall be mounted on the ceiling of the L1 compartment.
Kussmaul 20 AMP - 120v - Super Auto Eject or equivalent Y__N__

SHORELINE AUTO-EJECT

A KUSSMAUL Super Auto Eject, model 091-55-20-120 (or equivalent), with a yellow weatherproof cover shall be provided.

The Super Auto Eject is to be completely sealed to prevent internal contamination of the working components.

The internal switch arrangement of the Super Auto Eject shall be designed to close and open the 120-volt AC circuit after the mating connector is inserted and before the connector is removed. This design shall prevent arcing at the connector contacts to provide long life.

The electrical connection shall be provided as a 120-volt AC – 20 amp type using a NEMA 5-20P connector.

The auto eject shall be mounted high on the front exterior wall of the L1 compartment.

One (1)

Pump House Design Requirement

Y__N__

HYDRA TECHNOLOGY

The pump module must employ Hydra Technology. Due to the design a pump module manufactured with Hydra Technology is compact in size; massive in performance.

Each component in the module must undergo a selection and placement analysis staff engineers. Utilizing advanced 3D software, the engineers goals must provide component placements for ergonomics with a completed module that produces maximum water flow with optimum versatility. Only after the complete analysis and build of the module in the computer can the build of the hardware in the shop begin.

Pump module design beginning with a foundation; cage framework assemblies that are precision manufactured from strong corrosion free heavy wall stainless steel tubing. This framework mounts to the truck frame through a mounting design complimented with iso-mount elastomer cushions. The result shall be a mounting system that allows for the twisting movement of the truck frame without undue stress loading of the pump module.

Next assembled shall be the stainless side panels. Brushed, mirror polished or power coated the stainless steel side panels provide strength and durability. Precise engineering allows each panel to be laser machined before assembly; instead of drilling holes technicians shall spend their time on assembly techniques that provide installations that breeze through strict quality assurance.

A thorough review of the valve control placements on a control module shall result in a neat and orderly layout. Open the access door on a side control module and peer inside. The horizontal control rods appear neat and orderly. The appearance is only a portion of the requirement. The same neat and orderly appearance after countless hours of engineering design and ergonomic study provide a smooth trouble free linkage for valve operation. Another byproduct of the low profile control rod placement is the ability to offer ladder through the tank storage designs.

On a top control module mount valve controls are attached to the valves through high performance stainless steel aircraft type cable assemblies. Cables eliminate the inefficiencies of control rods connected to a valve. Operate a cable controlled top panel and you will feel the difference; smooth and precise across the full valve operation.

The gauge panel door shall be an expansive double wall stainless door supported by a 3/8-inch diameter hinge pin. The double wall door

provides unsurpassed strength and gauge protection while thwarting the casual attempt of tinkering. Authorized servicing of the components within the door is simplified with a bolt on access panel.

Inside the access door; there shall be a clean well build appearance. Stainless steel piping, stainless steel panels, and a stainless steel framework all to provide years of trouble free service. Pipe threads are not allowed on plumbing larger than 1-1/2 inch in diameter. The pump module design shall employ Victaulic coupling connections in the pump module to save time when servicing a component. Installation of components without the use of pipe threads allows for "drop-out" maintenance of critical components without disassembly of entire piping systems. Drop in valves and manifolds with Victaulic couplings are only the start of the serviceability designed into this pump module.

Apparatus taking exception to any portion of this requirement will not be acceptable.

One (1) Pump Enclosure, Side Mount, 24" Wide

Y__N__

PUMP COMPARTMENT

For durability the pump compartment shall be constructed entirely of brushed stainless steel.

One (1) Running Boards, L/S, R/S w/Laser Grip S/S Step Surface

Y__N__

RUNNING BOARDS

The running board step surface shall be covered in Laser Grip stainless steel meeting the current revision of NFPA 1901 for step requirements.

Bolt on running boards and support structure, shall be provided to provide field service of the running board without major repairs to the pump compartment in the event of an accident.

One (1) Pump Service Access

Y__N__

PUMP SERVICE ACCESS

The intake panels on the sides of the pump module shall be fastened with quick release latches to provide access to the pump at the intake piping area.

The floor of the crosslays shall be removable for access to the top of the pump module.

One (1) Control Panel, Side Mount Module

Y__N__

PUMP CONTROL PANEL

All pump controls and gauges shall be located at the left (street) side of the apparatus and properly identified. The layout of the pump control panel shall be ergonomically efficient and systematically organized.

All push-pull valve controls shall have quarter turn locking control rods with chrome plated zinc tee handles. Guides for the push-pull control rods shall be chrome plated zinc castings securely mounted to the pump panel. Push-pull valve controls shall be capable of locking in any position. The control rods shall pull straight out of the panel and shall be equipped with universal joints to eliminate binding.

One (1) Identification Labels - Metal Tags

Y__N__

PUMP PANEL IDENTIFICATION TAGS

The identification tag for each valve shall be recessed in the face of the control handle. All discharges shall have color-coded metal identification tags, with each discharge having its own unique color scheme. Color-coding shall include the labeling of the outlet and the drain for each corresponding discharge.

One (1) Pump Panel Finish, Brushed Stainless Steel

Y__N__

PUMP PANEL FINISH

All stainless panels used in the construction of the pump house shall have a brushed finish.

One (1) Controls & Gauges, Side Mount

Y__N__

CONTROLS AND GAUGES

The following shall be provided on the pump and gauge panels in a neat and orderly fashion. The gauge panel shall include the following:

One (1) FRC In Control 400 Pressure Governor, Engine Monitor and Pressure Display

Y__N__

PRESSURE GOVERNOR, MONITORING, and MASTER PRESSURE DISPLAY

Fire Research InControl series TGA400-A00 pressure governor and monitoring display kit (or equivalent) shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1-3/4" from the front of the control module. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.

The following continuous displays shall be provided:

Pump discharge; shown with four daylight bright LED digits more than 1/2" high

Pump Intake; shown with four daylight bright LED digits more than 1/2" high

Pressure / RPM setting; shown on a dot matrix message display

Pressure and RPM operating mode LEDs

Throttle ready LED

Engine RPM; shown with four daylight bright LED digits more than 1/2" high

Check engine and stop engine warning LEDs

Oil pressure; shown on a dual color (green/red) LED bar graph display

Engine coolant temperature; shown on a dual color (green/red) LED bar graph display

Transmission Temperature: shown on a dual color (green/red) LED bar graph display

Battery voltage; shown on a dual color (green/red) LED bar graph display.

The dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. All LED intensity shall be automatically adjusted for day and night time operation.

The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button. It shall monitor inputs and support audible and visual warning alarms for the following conditions:

- High Battery Voltage
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Transmission Temperature
- Low Engine Oil Pressure
- High Engine Coolant Temperature
- Out of Water (visual alarm only)
- No Engine Response (visual alarm only)

The program features shall be accessed via push buttons and a control knob located on the front of the control panel. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

Inputs to the control panel from the pump discharge and intake pressure sensors shall be electrical. The discharge pressure display shall show pressures from 0 to 600 psi. The intake pressure display shall show pressures from -30 in. Hg to 600 psi.

The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor, monitoring and master pressure display shall be programmed to interface with a specific engine.

One (1)

2-1/2" Pressure Gauges, 0-400 psig - English

Y__N__

PRESSURE GAUGES

Each line pressure gauge shall be mounted immediately above the control for the corresponding valve. The individual line pressure gauges

for the discharges shall be 2-1/2" in diameter with white dial face gauges with black lettering and markings. The gauges shall be a compound style gauge with a vacuum/pressure range of 0 - 400 psig.

The gauges shall be fluid filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to -40 degrees F. The cases shall be temperature compensated with an internal breathing diaphragm to permit fully filled cases and to allow a rigid lens with a distortion free viewing area. The gauge accuracy for the gauge shall be plus or minus 2% mid-scale, plus or minus 3% balance, per ANSI B40.1, Grade 1A.

To prevent internal freezing and to keep contaminants from entering the gauge, the stem and bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

All line pressure gauges shall be mounted adjacent to the corresponding discharge control tee handles.

One (1) 2-1/2" Pressure Gauge LED Lighting Y__N__

LED GUAGE LIGHTING

One (1) The 2-1/2" pressure gauges shall be equipped with LED back lighting.
20-18-1570 Pump Panel LED Lighting - WHITE/RED Y__N__

PUMP PANEL LIGHTING

The pump operator's panel shall be supplied with a LED light system. LED strip lights with a stainless steel hood shall be mounted across the top of the pump panel gauges and controls.

LED strip lights with a stainless steel hood shall be provided on each side of the pump module above the side panels.

All pump module lighting shall illuminate when the parking brake is engaged. There shall be a white/red color selector switch in the cab that controls the color of this lighting.

One (1) Pump, Midship, Hale "DSD", 1500 GPM Y__N__

PUMP MANUFACTURER AND MODEL

The pump shall be a Hale DSD model midship pump.

PUMP CONSTRUCTION AND ASSEMBLY

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 specs as outlined by the latest NFPA Pamphlet No. 1901. Pump shall be free from objectionable pulsation and vibration.

The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI. All moving metal parts in contact with water shall be of high quality bronze or stainless steel. Pump

body shall be vertically split on a single plane for easy removal of entire impeller assembly including wear rings and bearings without disturbing piping or the mounting of the pump in chassis. Pump shaft to be rigidly supported by three bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.

Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined, hand ground, 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.

Removable, non-corrosive material clearance rings shall be provided.

The pump shaft shall be heat-treated, electric furnace, corrosion resistant stainless steel. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.

PUMP TRANSMISSION

The pump transmission shall be assembled and tested at the pump manufacturer's factory. Pump transmission shall be of sufficient size to withstand up to 16,000 lbs. ft. of torque in road operating conditions. The pump transmission shall be designed with ample capacity for lubrication reserve and to maintain the proper operating temperature.

The transmission drive shafts shall be of heat-treated chrome nickel steel and at least 2-3/4 inches in diameter on both the input and output drive shafts. They shall withstand the full torque of the engine. All gears drive and pump, shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated, shaved, hardened and ground to give 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.

The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected. If 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-cab control for rapid shift shall be provided that locks in road or pump.

Three green warning lights shall be provided to indicate to the operator when the pump has completed the shift from Road to Pump position. Two green lights to be located in the truck driving compartment and one green light on pump operator's panel adjacent to the throttle control. All lights to have appropriate identification/instruction plates.

One (1)

Pump Rating, Hale, 1500 GPM

Y__N__

PUMP RATING AND TEST REQUIREMENTS

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 1500 gallons per minute (U.S. GPM), NFPA 1901 rated performance (**NO EXCEMPTIONS TO THIS REQUIRMENT**). The pump shall deliver the percentage of rated discharge at pressures indicated below:

100 percent of rated capacity at 150 pounds net pressure

70 percent of rated capacity at 200 pounds net pressure
50 percent of rated capacity at 250 pounds net pressure
100 percent of rated capacity at 165 pounds net pressure

One (1) The entire pump shall be assembled and tested at the pump manufacturer's factory. The pump shall be driven by a driveline from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.
Altitude Requirements, 0' to 2000 Feet Above Sea Level Y__N__

ALTITUDE REQUIREMENTS

One (1) The apparatus shall be designed to meet the specified rating at 0 to 2000' altitude.
Primer, Oil-less, Hale ESP Y__N__

PRIMING PUMP

One (1) The priming pump shall be a positive displacement vane type, oil-less, electrically driven, and conform to standards outlined in NFPA 1901. One priming control shall both start the priming motor and open the priming valve.
Pump Shift, Pneumatic w/Label, Indicator Lights, Mounted Cab/Pump Panel Y__N__

22-08-0200

PNEUMATIC PUMP SHIFT

One (1) The pump shift shall be air operated and shall incorporate an air double action piston to shift from road to pump and back. A manual or electric operated pump shift mechanism is not acceptable. The pump shift switch shall be mounted in the cab and identified as "AIR PUMP SHIFT" and include instructions permanently inscribed on the pump shift switch plate. The in-cab operating valve uses a spring loaded locking collar to prevent it from accidentally being moved.
The pump shift control assembly shall incorporate an indicating light system, which will notify the operator when the shift has been completed to PUMP and when the chassis transmission is in correct pumping gear.
The switch that activates the lights must be mounted on the pump transmission and positioned so that the pump shift arm activates the switch only when the shift arm has completed its full travel into PUMP position. An additional indicator light shall be provided adjacent to the throttle control at the pump operator's panel to indicate a completion of the pump shift.
Mechanical Seal, Inboard Side, Spring Loaded, Self-Adjusting Y__N__

MECHANICAL SEAL

One (1) The fire pump shall be provided with a mechanical pump seal. One (1) only required on the suction, inboard, side of the pump. The mechanical seal shall be two inches in diameter and shall be spring loaded, maintenance free and self-adjusting. Mechanical seal construction shall be a carbon sealing ring, stainless steel coil spring, Viton rubber boot, and a tungsten carbide seat with Teflon backup seal.
Anode, Water Pump, Indicator Weep Hole Y__N__

ANODE SYSTEM

To reduce the effect of galvanic action the pump shall be equipped with two alloy (2) anodes. One anode is to be installed on the inlet (suction) side of the system and one anode is to be installed on the pressure (outlet) side of the system.

The anode brass cap is to be drilled with a 1/8" diameter hole to provide an indicator when the anode alloy element is to be replaced.

One (1) Intake Pressure Relief Valve, TFT Y__N__

SUCTION PRESSURE RELIEF VALVE

Task Force Tips model #A1820 pressure relief valve shall be provided. The valve shall have an easy to read adjustment range from 90 to 300 PSI in 90, 125, 150, 200, 250, 300 PSI increments. For corrosion resistance the cast aluminum valve shall be hardcoat anodized with a powder coat interior and exterior finish. The valve shall be configured for either a Waterous or Hale pump, and have a 2" male NPT threaded discharge outlet. The unit shall be covered by a five-year warranty.

The discharge side of the intake relief valve shall be plumbed to the right side below the running boards, away from but, visible to the pump operator, and shall terminate with an unthreaded pipe. The adjustment control shall be located behind the street side pump panel.

One (1) Master Drain, Class 1, Manual Mounted Pump Panel Y__N__

MASTER DRAIN

The apparatus shall be equipped with a Class 1 Manual Master Pump Drain for draining of the lower pump cavities, volute and selected water-carrying lines and accessories. The all brass and stainless steel construction allows for operation up to 600 psi.

One (1) Certified NFPA Pump Test, Completed Apparatus Certificate Y__N__

PUMP CERTIFICATION TEST

The pump shall undergo pump test with line and/or low voltage requirements of NFPA 1901 prior to delivery of the completed apparatus. The certificate shall be furnished with the apparatus on delivery.

One (1) Pump Warranty, Hale, Five Year Y__N__

FIRE PUMP WARRANTY

Standard 5 year warranty (Parts and Labor for the first two years, parts only years 3 - 5) See Hale warranty for full details.

One (1) Electronic Manuals, Pump Service and Operation Y__N__

ELECTRONIC PUMP MANUALS

Two (2) sets of electronic fire pump service and operation manuals shall be provided with the completed apparatus.

One (1) Steamer Inlet, 6" NST Thread, L/S w/Strainer - No Intake Valves Y__N__

LEFT SIDE STEAMER INLET

There shall be one (1) steamer inlet furnished on the left side pump panel. The suction inlet shall have 6" NST thread. The suction inlet shall have a removable strainer provided inside the external inlet.

One (1) Steamer Inlet, 6" NST Thread, R/S w/Strainer - No Intake Valves Y__N__

RIGHT SIDE STEAMER INLET

There shall be one (1) steamer inlet furnished on the right-side pump panel. The suction inlet shall have 6" NST thread. The suction inlet shall have a removable strainer provided inside the external inlet.

One (1) Pump Side Intake, Left Side Y__N__

LEFT SIDE INTAKE

There shall be an intake located on the left (street) side of the pump and shall contain:

One (1) Suction Inlet, Side 2.5" - Side Operated Module Y__N__

A 2-1/2" intake shall be provided. The inlet shall have a 2-1/2" quarter-turn swing-out valve. The inlet shall be provided with a 2-1/2" NST female swivel that extends through the pump panel.

One (1) Suction Valve Control, Swing Type, Side, Adj To Valve Y__N__

The inlet valve shall have a swing type control handle located adjacent to the valve.

One (1) Discharge, Left Side Y__N__

LEFT SIDE DISCHARGE #2

The second from the forward discharge on the left (street) side of the pump panel shall contain:

One (1) Discharge, Right Side Front Y__N__

RIGHT SIDE FRONT DISCHARGE

The forward discharge on the right (curb) side of the pump panel shall contain:

One (1) Discharge, Right Side Rear Y__N__

RIGHT SIDE REAR DISCHARGE

The second from the forward discharge on the right (curb) side of the pump panel shall contain:

One (1) Discharge, Side, 2.5" - 30 degree Elbow - Manual Control Y__N__

A 2-1/2" discharge shall be provided. The discharge outlet shall have a 2-1/2" quarter-turn swing-out valve. The discharge shall be provided with

One (1) chrome plated 30-degree discharge elbow with 2-1/2" NST male threads that extends through the pump panel.
Discharge, Side, 3" - 30 degree Elbow - Manual Control Y__N__

One (1) A 3" discharge shall be provided. The discharge outlet shall have a 3" quarter-turn swing-out valve. The discharge shall be provided with chrome plated 30-degree discharge elbow with 3" NST male threads that extends through the pump panel.
Discharge, Side, 4" - Straight - Electric Control Y__N__

A 4" discharge shall be provided. The discharge outlet shall have a 4" quarter-turn swing-out valve. The discharge shall be provided with chrome plated straight discharge with 4" NST male threads that extends through the pump panel.
Control of the outlet shall be accomplished using an electric controller. There shall be an LED indicator on the controller to indicate the valve position.

One (1) Pump House Crosslay, (2) Beds, 1-1/2 double stacks Y__N__

PUMP CROSSLAYS

There shall be two (2) hose storage crosslay areas mounted on top of the pump module. They shall be arranged in a double stack design with a divider in the center. Each hose storage area shall be provided with dimensions of 9" wide x 57" deep x 13" tall [4 cu. ft. each].

DISCHARGE VALVES

There shall be one (1) discharge outlet in each hose storage compartment.

The discharge outlet shall have a 2" quarter-turn swing-out valve with a push pull type control handle adjacent to the valve. The discharge shall be provided with a swivel head with 1-1/2" NH male threads that extend through the hose compartment floor.

CROSSLAY HOSE GUIDES

One (1) Brushed stainless steel hose guides shall be provided on the left and right side of each hose bed.
Cover, Crosslay, Vinyl w/End Flaps Y__N__

CROSSLAY HOSEBED COVER

One (1) A vinyl coated nylon hosebed cover shall be provided over the crosslay hosebeds.
Cover Color, Crosslay, Vinyl, Midnight Black Y__N__

One (1) The vinyl crosslay cover shall be Midnight Black in color.
Ball Valves, Elkhart, Brass Y__N__

ELKHART BALL VALVES

All discharge ball valves shall be Elkhart heavy duty swing out valve with stainless steel ball unless specified otherwise.

One (1) Tank Fill Tower, 8" x 8", w/4" Vent Y__N__

TANK LID & FILL TOWER

The tank shall have a combination vent and fill tower. The fill tower shall be constructed of 1/2" thick Polyprene & Mac226 and shall be a minimum dimension of 8"x 8" outer perimeter. The tower shall be located in the center front the tank unless otherwise specified by the purchaser. The tower shall have a 1/4" thick removable Polyprene & Mac226; screen and a Polyprene & Mac226 hinged-type cover. Inside the fill tower, there shall be a combination vent overflow pipe. The vent overflow shall be a minimum of schedule 40 pipe with a minimum ID of 4" that is designed to run through the tank, and shall be piped behind the rear axle beneath the tank.

The tank cover shall be constructed of recessed 1/2" thick Polyprene & Mac226, stress relieved, UV stabilized material. A minimum of two lifting dowels shall be drilled and tapped to accommodate the lifting eyes.

OVERFLOW AND VENT PIPE

The fill tower shall be fitted with an integral 4" ID, Schedule 40 PVC combination overflow/vent pipe running from the fill tower through the tank to a 4" coupling flush mounted into the bottom of the tank to allow water to overflow beneath the chassis.

One (1) Water Tank Capacity, T-Tank, 300 US Gallons - Mini Y__N__

WATER TANK CAPACITY

The water tank shall be rectangular shaped, and shall have a capacity of 300 US gallons.

One (1) Cubic Ft, Body 139/ Hosebed 40, Hosebed Height, 44", 108" OAL Y__N__

BODY MODULE CAPACITIES AND HOSEBED HEIGHT

The total capacity of the body module exterior compartments shall be 139 cubic feet.

The total capacity of the body hosebed shall be approximately 40 cubic feet.

The hosebed shall be approximately 44" from the bumper.

The body shall have an overall length of 108".

One (1) Piping, Tank To Pump, 3" w/3" Air Operated Ball Valve Y__N__

TANK TO PUMP

The tank to pump piping shall be capable of delivering water to the pump at a rate of five hundred (500) gallons per minute. This flow shall be sustained while pumping to a minimum of 80% of the certified tank capacity with the apparatus on level ground.

The tank to pump line shall run from the pump to the front face of the water tank and down into the tank sump. A rubber coupling shall be included in this line to prevent damage from vibration or chassis flexing. The tank to pump line shall be 3" I.D. piping with a 3" ball valve.

One (1) Tank Refill, 2" Line w/ 1/4 Turn Ball Valve Y__N__

TANK REFILL

A 2" tank refill line shall be provided using a 2" quarter-turn full flow ball valve controlled from the pump operator's panel with a manual locking handle. The tank refill shall be plumbed with high pressure flexible piping and high pressure flexible piping stainless steel couplings.

One (1) Gauge, (1) Water Tank Level - FRC Tank Vision

Y__N__

WATER TANK INDICATOR

Fire Research TankVision model WLA300-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The indicator shall show the volume of water in the tank on nine (9) easy to see super bright LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of aluminum, and have a distinctive blue label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, and a data link to connect remote indicators. Low water warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the water tank near the bottom. No probe shall place on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

One (1) Cap, 6" Long Handle - HME Logo

Y__N__

LARGE DIAMETER CAP

A six (6) inch chrome plated cap with long handles shall be supplied. The cap shall be capable of withstanding 500 PSI and be trimmed with the apparatus manufacturer's logo in the center of the cap.

One (1) Cap, 6" Long Handle - HME Logo

Y__N__

LARGE DIAMETER CAP

A six (6) inch chrome plated cap with long handles shall be supplied. The cap shall be capable of withstanding 500 PSI and be trimmed with the apparatus manufacturer's logo in the center of the cap.

One (1) Intake Plug, (Qty) 2.5" w/Cap & Chain

Y__N__

One (1) One (1) 2-1/2" chrome plated rocker lug plug with chain shall be supplied.
4" NST F to 5" Storz - 30degree - Swivel Rocker Lug - (Qty)

Y__N__

STORZ ADAPTER

One (1) 4" NST Female swivel thread 30-degree down to 5" Storz hard coated aluminum adapter shall be provided. (ref. TFT AH3ST-NP)

One (1) (Qty) 5" Storz w/Cap & Lanyard

Y__N__

One (1) 5" Storz cap and lanyard with a suction gasket shall be provided. (ref. TFT A01ST)

One (1) Discharge Cap, (Qty) 2.5" Chrome Vented Rocker Lug w/Chain Y__N__

DISCHARGE CAP

One (1) chrome plated, Class 1, 2-1/2" rocker lug cap with lug vent and chain shall be furnished.

One (1) Discharge Cap, (Qty) 3" Chrome Vented Rocker Lug w/Chain Y__N__

DISCHARGE CAP

One (1) chrome plated, Class 1, 3" rocker lug cap with lug vent and chain shall be furnished.

One (1) Body Design and Construction, Utility/Mini, Stainless Steel Y__N__

PURCHASE INTENT

The apparatus being purchased is expected to have an 18 to 20 year service life. Based on this requirement, the department is extremely concerned that the apparatus remains structurally sound and the outward appearance remains in a "like new" condition, with minimal maintenance and upkeep, throughout the intended service life.

The entire body design shall be of a laser machined, bolted design to allow for ease of removal for repair or replacement, without cutting welds.

APPARATUS BODY DESIGN AND CONSTRUCTION

The apparatus body shall be built of stainless steel and shall be designed exclusively for Fire Service use. The overall body width shall be 95 inches wide. All metal work shall be free of sharp edges, objects or corners. **NO EXEPTIONS TO THIS REQUIREMENT.**

The body design shall be fully tested with proven engineering and test techniques such as finite element analysis, stress coating, and strain gauging. Engineering and test techniques shall have been performed with special attention given to fatigue life and structural integrity of compartments and body support system.

The apparatus body shall be designed with the use of parametric modeling engineering software to ensure proper design of panel cuts and alignment of holes in mating parts. The entire apparatus body shall be a precision laser machined, bolted construction, properly reinforced with integral flanges eliminating the need for additional structural shapes. Hose body fabrications shall be free of all internal projections which might injure personnel or fire hose.

MODULAR BODY REQUIREMENTS

The body shall be completely modular in design allowing transfer of body components to a new chassis in the event of an accident or wear. Body components shall be removable from chassis without cutting or bending. The modular design shall also facilitate ease of repair or replacement of major or minor body parts. The mounting of the apparatus body shall be separate and distinct from the water tank mounting and the pump module mounting. **NO EXEPTIONS TO THIS REQUIREMENT.**

All body panels are to be laser machined on a CAM controlled laser to ensure accuracy (+/- .010"). This shall greatly enhance assembly and

matching of repair parts. The body compartment floors, rear walls and roof areas shall be constructed of 12-gauge stainless steel. The vertical front and rear walls are designed with 14-gauge stainless steel. These front and rear walls are designed as a structural beam with the inclusion of the design.

Interior stainless steel panels shall be #4B finish to eliminate the need for high maintenance painted surfaces in the compartments. All exterior stainless steel panels shall have #4B finish.

The entire body shall be fabricated using precision holding fixtures to ensure accurate dimensions. Body front and rear vertical flanges shall be triple broken, providing a mounting area for rear hand rails. Major body components shall consist of right and left body sides, and rear facing compartments.

COMPARTMENT ROOF CONSTRUCTION

Each compartment top shall have a bolt in 12-gauge stainless roof section for supporting roof loads of up to 500 pounds per square foot without permanent roof deformation. The stainless roof sections shall attach the compartment rear wall and compartment vertical sides through a fastened joint creating a full perimeter compartment attachment of the stainless roof section.

One (1) Compartment Interior Finish

Y ___ N ___

COMPARTMENT INTERIOR FINISH

For better interior visibility, to reflect light better, ease of maintenance and prevent the masking of poor welds and questionable workmanship the interior of the body compartments shall remain uncoated.

One (1) Hosebed, S/S w/5" Extended Sides/Removable HD Ext Aluminum Floorboards

Y ___ N ___

APPARATUS BODY HOSEBED

The hose bed shall be constructed in such a manner that will prevent damage to fire hose. The hosebed shall comply with the current NFPA requirements. The interior of the hosebed shall be free of projections such as nuts, sharp edges or brackets that may damage hose. The hosebed and walls shall be manufactured from stainless steel. No exceptions to this requirement are allowed.

An aluminum extrusion shall be installed over the rear opening of the hosebed to protect the body from wear. The hosebed bottom shall be fitted with removable slatted, ribbed 6" heavy-duty extruded aluminum floorboards.

One (1) Divider, Hosebed, Adjustable, Smooth Alum w/Radius Corner

Y ___ N ___

ADJUSTABLE HOSE BED DIVIDERS

An adjustable hosebed divider shall be provided. The divider shall be fabricated from .250" thick smooth aluminum plate, 5052-H32 alloy. The rear end of each divider shall have a 3" radius corner and shall be sanded and deburred to prevent damage to hose.

There shall be two hand hold openings provided. One (1) at the rear in a vertical position and one (1) approximately 24 inches in from the rear in a horizontal position.

One (1) Hosebed Cover, Black Y__N__

HOSEBED COVER

A black vinyl hosebed cover shall be provided and designed to cover the entire main hosebed area. The cover shall be installed with "stretch cord type" fasteners along each side of the hosebed. A weighted flap shall be incorporated into the rear edge of the cover.

One (1) The hosebed cover rear flap shall have a positive locking device to meet the requirements of NFPA.
Frame Extension, Class IV Hitch Rear Y__N__

CHASSIS FRAME EXTENSION

There shall be a rear three (3) inch x four (4) inch x 1/4-inch wall ASTM A-500 grade B rectangular tubing frame extension to provide frame support for the rear of the apparatus body.

Two vertical mounting plates are to be welded to the tubing to provide a drop frame connection to the truck chassis. This extension assembly is to be bolted to the truck chassis with eight (8) 1/2 grade 8 bolts with hardened flat washers to form an integral part of the truck frame assembly.

RECEIVER HITCH

There shall be a Class IV receiver hitch assembly as an integral part of the chassis rear frame extension that is located at the rear of the apparatus below the rear step.

EXTENSION PAINT FINISH

One (1) The rear frame extension assembly and hitch assembly is to be black powder coated prior to installation.
Ext Compartment Design and Construction Y__N__

COMPARTMENT DESIGN AND CONSTRUCTION

All compartments shall be manufactured from 12-gauge stainless steel with the vertical front and rear corner walls from 14-gauge, shall be of sweep out design and shall be bolted together. Stainless recessed round head bolts and stainless aircraft style "ESNA" nuts shall be applied with proper torque rating for each fastener. This type of construction shall greatly enhance the strength and ease of parts replacement in the event of damage and future modifications. Wherever possible, body bolts shall be hidden from plain view for appearance and ease of apparatus cleaning.

One (1) Compartment Ventilation w/Filtration Y__N__

COMPARTMENT VENTILATION

Each compartment shall be provided with a laser cut louver to provide adequate ventilation.

VENT FILTRATION

There shall be filters provided for compartments L1, L3, R1 and R3. The protective louver covering the filter shall be removable to allow for filter changing.

The filter shall be 100% virgin nylon fiber in an open web design that is USDA approved. The filter shall be chemically treated with Dimethyl Benzyl Ammonium Saccharinate to aid in the reduction of bacteria and fungi.

One (1) Compartment Body - 300 gallon - Mini Pumper Y__N__

One (1) Left Side Compartments - Mini Pumper Y__N__

LEFT SIDE COMPARTMENT DIMENSIONS

FORWARD OF WHEEL WELL

There shall be one (1) rescue style, full height, full depth compartment ahead of the rear wheels. The compartment dimensions shall be 35-1/2" wide x 57" high x 22" deep with the door closed. The door opening shall be 26-1/2" wide x 49-1/2" tall.

ABOVE WHEEL WELL

There shall be one (1) high side full depth compartment centered over the rear wheels. The compartment dimensions shall be 44" wide x 40" high x 22" deep with the door closed. The door opening shall be 42" wide x 34-1/2" tall.

REAR OF WHEEL WELL

There shall be one (1) rescue style, full height, full depth compartment behind the rear wheels. The compartment dimensions shall be 23-1/2" wide x 57" high x 22" deep with the door closed. The door opening shall be 19" wide x 49-1/2" tall.

One (1) Roll Up Doors, L/S, Painted Finish - Mini Pumper Y__N__

ROLLUP DOOR CONSTRUCTION - LEFT SIDE

All left side compartments shall be provided with Gortite roll up doors. The roll up doors shall be constructed of double sided aluminum extrusions connected with a ball and socket joint. The extrusions shall be 1-3/8" wide x 3/8" thick and shall be painted to match the job color. A flexible EDPM extrusion shall be provided between each slat to insure a weather tight seal. Aluminum extrusions shall be individually replaceable without disassembling the entire door by removing push out clips on each end.

Side channels for each door to ride in shall be provided with santoprene seals to prevent dirt and moisture from entering the exterior compartment. A single piece top drip rail shall be provided with a santoprene seal to prevent dirt and moisture from entering the compartment when the door is fully closed. The bottom of each door shall also be provided with a santoprene seal. All nonmetallic parts shall be glass filled nylon.

One (1) Door Latches, L/S, Non-Locking Lift Bar w/Door Ajar Switch Y__N__

One (1) The left side door latches shall be non-locking stainless steel lift bars and shall be provided with a magnetic door ajar switch system.
Door Latches, L/S, Non-Locking Lift Bar w/Door Ajar Switch Y__N__

One (1) The left side door latches shall be non-locking stainless steel lift bars and shall be provided with a magnetic door ajar switch system.
Wheel Area, Single Axle Y__N__

FENDER SIDE SKIRTS

One (1) There shall be stainless steel fender side skirts located in the area of the rear wheels. The design of the fender sides shall be a minimal length to provide maximum compartment space in the apparatus.
Right Side Compartments - Mini Pumper Y__N__

RIGHT SIDE COMPARTMENT DIMENSIONS

FORWARD OF WHEEL WELL

There shall be one (1) rescue style, full height, full depth compartment ahead of the rear wheels. The compartment dimensions shall be 35-1/2" wide x 57" high x 22" deep with the door closed. The door opening shall be 26-1/2" wide x 49-1/2" tall.

ABOVE WHEEL WELL

There shall be one (1) high side full depth compartment centered over the rear wheels. The compartment dimensions shall be 44" wide x 40" high x 22" deep with the door closed. The door opening shall be 42" wide x 34-1/2" tall.

REAR OF WHEEL WELL

One (1) There shall be one (1) rescue style, full height, full depth compartment behind the rear wheels. The compartment dimensions shall be 23-1/2" wide x 57" high x 22" deep with the door closed. The door opening shall be 19" wide x 49-1/2" tall.
Roll Up Doors, R/S, Painted Finish - Mini Pumper Y__N__

ROLLUP DOOR CONSTRUCTION - RIGHT SIDE

All right side compartments shall be provided with Gortite roll up doors. The roll up doors shall be constructed of double sided aluminum extrusions connected with a ball and socket joint. The extrusions shall be 1-3/8" wide x 3/8" thick and shall be painted to match the job color. A flexible EDPM extrusion shall be provided between each slat to insure a weather tight seal. Aluminum extrusions shall be individually replaceable without disassembling the entire door by removing push out clips on each end.

One (1) Side channels for each door to ride in shall be provided with santoprene seals to prevent dirt and moisture from entering the exterior compartment. A single piece top drip rail shall be provided with a santoprene seal to prevent dirt and moisture from entering the compartment when the door is fully closed. The bottom of each door shall also be provided with a santoprene seal. All nonmetallic parts shall be glass filled nylon.
RR1, Ext Compartment, Rear, 33-1/2" H x 48" W x 42" D, Full Height Y__N__

REAR COMPARTMENT DIMENSIONS

There shall be one (1) full height compartment at the rear of the body. It shall have approximate dimensions of 48" wide x 33-1/2" high x 42" deep. The door opening shall be 45-1/2" x 24" tall.

One (1) Roll Up Door, Rear, Satin Anodized Finish, Full Height

Y__N__

ROLLUP DOOR CONSTRUCTION - REAR

The rear compartment shall be provided with a Gortite roll up door that shall be constructed of double sided aluminum extrusions connected with a ball and socket joint. The extrusions shall be 1-3/8" wide x 3/8" thick with satin anodized finishing. A flexible EDPM extrusion shall be provided between each slat to insure a weather tight seal. Aluminum extrusions shall be individually replaceable without disassembling the entire door by removing push out clips on each end.

Side channels for the rear door to ride in shall be provided with santoprene seals to prevent dirt and moisture from entering the exterior compartment. A single piece top drip rail shall be provided with a santoprene seal to prevent dirt and moisture from entering the compartment when the door is fully closed. The bottom of the door shall also be provided with a santoprene seal. All nonmetallic parts shall be glass filled nylon.

One (1) Door Latch, Rear, Non-Locking Lift Bar w/Door Ajar Switch

Y__N__

The rear door latch shall be a non-locking stainless steel lift bar and shall be provided with a magnetic door ajar switch system.

One (1) Fuel Fill, L/S Rr Fender w/Door, Label

Y__N__

FUEL FILL - SIDE BODY

The fuel fill shall be located in the rear fender area on the left side of the apparatus body. The spring loaded fuel fill door shall have "Diesel Fuel" laser cut in the face of the door.

One (1) Fenderettes and Wheel Well Liners - Stainless

Y__N__

BODY FENDERS - POLISHED

The apparatus body fenders shall be made from 16 gauge polished stainless steel and shall be rolled, die stamped and fully removable. The stainless steel fenders and stainless fender liners shall be fastened with stainless bolts and ESNA nuts to the outer fender panel.

One (1) Mud Flaps, Rear

Y__N__

REAR AXLE MUD FLAPS

Two (2) black, anti-sail, mud flaps shall be mounted behind the rear wheels.

One (1) Tray, (2) 9' Suction, L/S, Above Compartment - Utility

Y__N__

HARD SUCTION TRAYS - LEFT SIDE

Two (2) stainless steel hard suction trays shall be installed on the top of the compartment on the left (driver's) side of the apparatus.

Each tray shall be designed to accommodate hard suction hose in a nine (9) foot length. The suction shall be held in place with straps attached to the tray with footman loops.

One (1) Lights, Compartment, LED Strip, Armor Protected - White/Red Y__N__

APPARATUS COMPARTMENT LIGHTING

Two (2) LED, armor protected, strip lights shall be provided one (1) each side of the compartment at the door frame for each body compartment. Each body door shall have an automatic compartment light switch.

There shall be a white/red color selector switch in the cab that controls the color of this lighting.

One (1) Steps, Folding, Rear of Body - Three Y__N__

FOLDING STEPS

Three (3) folding steps shall be provided on the left rear of the apparatus body.

Three (3) Upgraded Folding Step with LED light Y__N__

The folding step(s) shall include an integrated LED light beneath each step. This light shall illuminate when the apparatus ground lights are activated. The bottom of the step and step mounting shall include white reflective material to aide in locating the step when the vehicle ground lights are not activated.

One (1) Beveled Rear Tailboard, 8", LaserGrip Stainless Steel Y__N__

BEVELED REAR TAILBOARD

A rear tailboard 8" deep shall be provided at the rear from "Laser Grip" stainless steel. The tailboard shall provide recessed for the rear ICC marker lights. It shall be bolted to the rear support structure. The corners of the rear bumper shall be beveled back to reduce the rear bumper swing of the vehicle.

One (1) STANDARD Shelf, Tray, Toolboard Package Y__N__

One (1) Shelf Package, Deep - One (1) each in R1, L1, R3, L3 Y__N__

ALUMINUM SHELVES - ADJUSTABLE

Four (4) adjustable aluminum shelves shall be provided with one (1) each installed in R1, L1, R3 and L3 compartments. The shelves shall have a flange 1-1/2" deep with a minimum material thickness of .190". Each shelf shall be adjustable in height and held in place by four (4) extruded uprights.

One (1) Shelf Package, Deep - One (1) each in R2, L2 Y__N__

ALUMINUM SHELVES - ADJUSTABLE

Two (2) adjustable aluminum shelves shall be provided with one (1) each installed in R2 and L2 compartments. The shelves shall have a flange 1-1/2" deep with a minimum material thickness of .190". Each shelf shall be adjustable in height and held in place by four (4) extruded uprights.

One (1) Shelf Package, - One (1) in RR1 Y__N__

ALUMINUM SHELF - ADJUSTABLE

One (1) adjustable aluminum shelves shall be provided and installed in the RR1 compartment. The shelf shall have a flange 1-1/2" deep with a minimum material thickness of .190". The shelf shall be adjustable in height and held in place by four (4) extruded uprights.

One (1) Toolboards, FoxTrax, Mounted Rear Wall, L2, R2 Compartments

Y__N__

ALUMINUM TOOL BOARDS

The rear wall of the L2 and the rear wall of the R2 compartments shall be covered with FoxTrax aluminum extrusion tool mounting board.

One (1) Body - LED - ICC Lighting - Reflectors

Y__N__

APPARATUS ICC MARKER LIGHTING AND REFLECTORS

Three (3) red LED clearance lights shall be supplied, mounted in the rear of the apparatus.

ICC lighting utilized and lighting positions shall be in conformance with FMVSS 108.

There shall be a diamond shaped amber reflector mounted on each front corner of the apparatus body and a diamond shaped red reflector mounted on each rear corner of the body.

One (1) Rear Stop/Tail/Turn - Whelen

Y__N__

REAR STOP/TAIL/TURN/BACKUP LIGHTS

The rear of the apparatus shall be equipped with Whelen 600 Series lights. The top light in the assembly shall be a red LED stop/tail light, Whelen model C6BTT. The middle light set shall be an amber LED lamp with a populated arrow shape, Whelen model C6T.

One (1) Back Up Alarm

Y__N__

BACK-UP ALARM

A solid state electronic backup alarm shall be installed on the rear of the apparatus and wired to the backup light circuit.

One (1) License Plate Bracket w/LED Light

Y__N__

One (1) license plate mounting and LED light shall be provided. The light and bracket shall be located on the rear of the apparatus.

One (1) Lightbar, Front, Whelen - Justice - LED

Y__N__

ROOF MOUNTED LIGHTBAR

A Whelen Justice (or equivalent), 56" light bar system shall be supplied and permanently mounted on the lightbar mounting support on the front of the body. This light bar system shall be supplied with:

- all clear lens covers
- four (4) corner red LIN6 LED lightheads
- two (2) JDCR red CON3 Super-LED lightheads in the outboard positions
- two (2) JDCC white CON3 Super-LED lightheads in the second forward positions

two (2) JDCR red CON3 Super-LED lightheads in the third forward positions

two (2) rear facing JDCA amber CON3 Super-LED lightheads in the outboard positions

One (1) Brush Guard Front Warning, Whelen - LED Ultimate Package

Y__N__

COMBINATION FRONT WARNING AND GROUND LIGHT

There shall be two (2) Whelen M4 Series Model # M4V2R, or equivalent, combination 180° warning/ground lights mounted on the front brush guard facing forward.

The warning light shall consist of two V-series Super-LEDs with clear TIR reflectors maximum illumination.

The ground light shall consist of three white Super-LEDs installed at 45° angle with a TIR reflector for supreme radiance.

One (1) Brush Guard Side Warning, Whelen - LED Ultimate Package or equivalent

Y__N__

COMBINATION FRONT-SIDE WARNING AND GROUND LIGHT

There shall be two (2) Whelen M4 Series Model # M4V2R combination 180° warning/ground lights mounted on the front brush guard facing to the side.

The warning light shall consist of two V-series Super-LEDs with clear TIR reflectors maximum illumination.

The ground light shall consist of three white Super-LEDs installed at 45° angle with a TIR reflector for supreme radiance.

One (1) Body Side Warning, Whelen - LED Ultimate Package or equivalent

Y__N__

COMBINATION FRONT-BODY WARNING AND GROUND LIGHT

There shall be two (2) Whelen M4 Series Model # M4V2R , or equivalent, combination 180° warning/ground lights mounted on each side of the body in the forward wheelwell area.

The warning light shall consist of two V-series Super-LEDs with clear TIR reflectors maximum illumination.

The ground light shall consist of three white Super-LEDs installed at 45° angle with a TIR reflector for supreme radiance.

One (1) Upper Rear, Whelen - LED Ultimate Package or equivalent

Y__N__

REAR UPPER LEVEL WARNING / PERIMETER LIGHTS

There shall be two (2) Whelen M4 Series Model # M4V2R, or equivalent, combination 180° warning/perimeter lights mounted facing the rear, one (1) each side of the body in the upper position.

There shall be two (2) Whelen M4 Series Model # M4V2R, or equivalent, combination 180° warning/perimeter lights mounted, one (1) mounted on the upper rear sides of the apparatus.

The warning light shall consist of two V-series Super-LEDs with clear TIR reflectors maximum illumination.

The perimeter light shall consist of three white Super-LEDs installed at 45° angle with a TIR reflector for supreme radiance. Perimeter lighting is switched with the ground lighting.

There shall be one (1) Whelen Super-LED Traffic Advisor, Model # TAD8RR, (or equivalent) mounted facing the rear. It shall be directly above compartment RR1.

One (1) Lower Rear, Whelen - LED Ultimate Package or equivalent

Y__N__

REAR UPPER LEVEL WARNING / PERIMETER LIGHTS

There shall be two (2) Whelen M4 Series Model # M4V2R combination 180° warning/perimeter lights, or equivalent, mounted facing the rear, one (1) each side of the body in the lower position.

The warning light shall consist of two V-series Super-LEDs with clear TIR reflectors maximum illumination.

The perimeter light shall consist of three white Super-LEDs installed at 45° angle with a TIR reflector for supreme radiance. Perimeter lighting is switched with the ground lighting.

One (1) Worklights, Whelen, (2) PFBP12, LED, Mounted Front Body Top or equivalent

Y__N__

BODY LED WORKLIGHTS

Two (2) Whelen PFBP12 LED hosebed floodlights (or equivalent) shall be provided. One (1) mounted at the front right corner and one (1) on the front left corner of the body. The lights shall be controlled from a switch on the lamp head.

One (1) Wheel Chocks, (2) Worden 7HY HD, Yellow Aluminum - OES

Y__N__

WHEEL CHOCKS

One pair of heavy duty, extruded aluminum wheel chocks measuring 8" high x 7" wide x 11.8" long shall be provided with the apparatus. Worden 7HY HD Yellow Handled Extrusions are the requested chocks. The wheel chocks shall have a bright yellow powder coat finish for high visibility, safety and corrosion resistance. No exception shall be allowed to these requirements.

Two chock holders shall be provided and mounted one on each side of the apparatus just ahead of the rear tires below the front body compartment.

One (1) Compartment Top Ladder Group - 8-Fold, 8-Roof, 14-2 Sec

Y__N__

One (1) Ladder, 8' Roof, Duo-Safety, Channel Rail, Aluminum Y__N__

ROOF LADDER

One (1) 8' Duo-Safety model 775-A, aluminum channel rail roof ladder with folding roof hooks (or equivalent) shall be provided with the apparatus.

One (1) Ladder, 8' Folding Attic, Duo-Safety, Aluminum Y__N__

ATTIC LADDER

One (1) 8' Duo-Safety model 585-A aluminum folding attic ladder shall be provided with the apparatus.

One (1) Ladder, 14' Two-Sect Ext, Duo-Safety, Solid Beam Aluminum Y__N__

EXTENSION LADDER

One (1) 14' two-section Duo-Safety model 1000A solid beam, aluminum extension ladder shall be provided with the apparatus.

Two (2) Hard Suction, 9"x 6", Lightweight PVC w/NH Coupling Y__N__

HARD SUCTION HOSE

Two (2) 9' long x 6" diameter, lightweight PVC flexible suction hose shall be provided. It shall be first quality, non-collapsible type and designed for having a low friction loss which will not collapse under a vacuum of 23". The hard suction hose shall be equipped with a long handle female end and rocker lug male end couplings.

One (1) Chevron, Rear Body NFPA, 6" - Pumper Tall Rear Door Y__N__

REAR BODY REFLECTIVE CHEVRON STRIPING

The rear-facing vertical surfaces of the rear taillight panels and the rear body inset area beside the full height rear door(s), visible from the rear of the apparatus, including the rear compartment door(s), shall be equipped with six (6) inch wide retroreflective striping in a chevron pattern sloping downward and away from the centerline of the vehicle at an angle of 45 degrees.

One (1) Chevron Color - Red and Yellow Reflective Y__N__

Each stripe in the chevron shall be a single color alternating between red (3M #-82) and yellow (3M #-81).

One (1) Water Tank Warranty - Service Life Y__N__

WATER TANK WARRANTY

The water tank is to be free from defects in material and workmanship for the normal service life of the apparatus in which the water tank is installed.

If a tank has a defect in material or workmanship covered by the warranty, the tank manufacturer shall repair at their cost, by authorized personnel or authorized third parties. The tank manufacturer shall make an effort to effectuate repair within 48 hours following initial notification of a covered defect. The tank manufacturer shall make a reasonable effort to repair tank at most convenient location to end user.

The tank manufacturer shall reimburse all reasonable costs associated with rendering the tank accessible for repair, including, but not limited to, removal and reassembly of the hose bed floor

ADDITIONAL REQUIREMENTS AND EQUIPMENT

APPARATUS STRIPING

Y___ N___

Apparatus shall be striped to meet the specifications of Mount or Fire Department and meet NFPA requirements.

SCENE LIGHT

Y___ N___

Two (2) Whelen Dual Flood Pioneer Scene Lights, Model # PFH2, (or equivalent) shall be mounted on the front corners of the apparatus body. They shall be assembled with a silver, 3-foot, push-up, and mounting pole.

LARGE DIAMETER HOSE

Y___ N___

Ten (ten) sections of 5" X 100' hose shall be provided. The hose shall be constructed of a woven design and be equipped with Storz couplings.

INTAKE VALVE

Y___ N___

One (1) Akron Revolution Intake Valve, with 5" swivel Storz Inlet, shall be provided.

BATTERY POWERED RESCUE TOOL

Y___ N___

One (1) Battery operated combination (cutter and spreader) rescue tool shall be provided. This tool shall be equipped with LED lights to illuminate the work area and be operated from a 60 Volt DeWalt Battery. It shall provide a 15.6" spreading distance and a 7.3" cutting opening.

AUTHORIZED SERVICE CENTER

Y___ N___

Must have a 24-hour service center, that is authorized by the apparatus body manufacturer, located within 50 miles of Mount Pleasant Fire Department. **NO EXEPTIONS TO THIS REQUIREMENT.**

RADIO INSTALLATION

Y___ N___

One (1) mobile radio (to be provided by Mount Pleasant Fire Department) shall be completely installed in the apparatus.

