



## **REQUEST FOR PROPOSAL**

### **Tactical Water Tender Fire Apparatus**

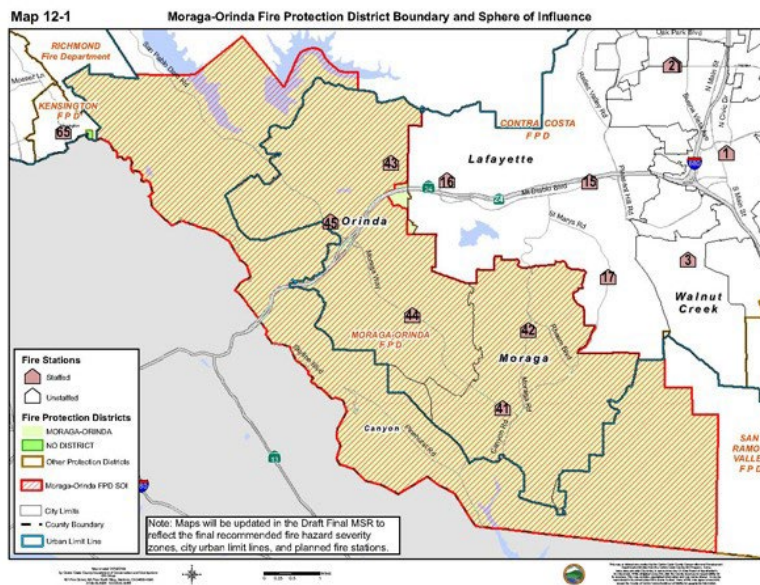
Issue Date: October 18, 2022

Proposal Due Date: November 1, 2022 at 9:00 AM

# SECTION ONE - OVERVIEW MOFD OVERVIEW

The Moraga-Orinda Fire Protection District (MOFD) provides fire protection, rescue, and emergency medical services in the City of Orinda, the Town of Moraga, and unincorporated county areas adjacent to the municipalities, and the community of Canyon. The MOFD also provides automatic aid into Lafayette and State Responsibility Areas that lie within the District's boundaries.

MOFD proudly provides an "all-risk" delivery system and will respond and mitigate any incident that has harmful physical effects to persons or property. Within MOFD, there are five strategically located fire stations which deploy a wide variety of apparatus for specific emergencies. Each fire engine, fire truck and cross-staffed ambulance is staffed with at least one firefighter/paramedic.



## APPARATUS REQUESTED

The Moraga-Orinda Fire District (MOFD) is seeking to contract with a qualified apparatus bidder to provide the District with one (1) Tactical Water Tender Fire Apparatus.

The Moraga-Orinda Fire District requires that all contractors building equipment must possess the ability to perform successfully under the terms and conditions of the contract. Proposals will be received by the Moraga-Orinda Fire District for the furnishing of all necessary labor, equipment and material to build the specified fire apparatus as outlined.

The Moraga-Orinda Fire District reserves the right to reject any and all bids, wholly or in part, and to award the bid in a manner deemed in the best interest of the MOFD. Bids may be withdrawn at any time prior to the time of opening. The Contractor shall furnish all material, tools, equipment, transportation, supervision, incidentals and labor specified. The District is requesting proposals (RFP) from qualified provide to enter into a service agreement beginning immediately.

## SECTION TWO – PROJECT GENERAL OVERVIEW

### GENERAL

The following equipment shall be a new **Stainless Steel Dust Control - Water Tender**

PRODUCT:	NON-POTABLE WATER.
OVERALL LENGTH:	25'6" MAXIMUM
VESSEL CODE:	NON-SPEC. NFPA 1901 COMPLIANT
OPERATING PRESSURE:	ATMOSPHERE.
TANK OPERATING TEMPERATURE:	ONE HUNDRED TWENTY-FIVE DEGREES FAHRENHEIT (125° F) MAXIMUM.
INTENDED AREA OF OPERATION:	STATE OF CALIFORNIA.
INTENDED USE:	HIGHWAY AND OFF-ROAD

### CHASSIS:

**NFPA 1901 COMPLIANT:**

### MINIMUM SPECIFICATIONS:

M2 106 CONVENTIONAL CHASSIS	STRAIGHT TRUCK PROVISION
2024 MODEL YEAR SPECIFIED	LH PRIMARY STEERING LOCATION
SET BACK AXLE - TRUCK	

### GENERAL SERVICE

TRUCK CONFIGURATION	MAXIMUM 8% EXPECTED GRADE
DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)	MAINTAINED GRAVEL OR CRUSHED ROCK - MOST SEVERE IN-TRANSIT (BETWEEN SITES) RD SURFACE
RESCUE AND EMERGENCY SERVICE	MEDIUM TRUCK WARRANTY
GOVERNMENT BUSINESS SEGMENT	EXPECTED FRONT AXLE(S) LOAD : 12000.0 lbs
LIQUID BULK COMMODITY	EXPECTED REAR DRIVE AXLE(S) LOAD: 23000.0 lbs
TERRAIN/DUTY: 10% (SOME) OF THE TIME, IN TRANSIT, IS SPENT ON NON-PAVED ROADS	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 35000.0 lbs

### ENGINE

CUM L9 330EV HP @ 2200 RPM, 2200 GOV RPM, 1000 LB-FT @ 1200 RPM, R/F/E	
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### ENGINE EQUIPMENT

2010 EPA/CARB/GHG21 CONFIGURATION	RH CURVED VERTICAL TAILPIPE B-PILLAR MOUNTED Routed FROM STEP
2008 CARB EMISSION CERTIFICATION - EXEMPTED VEHICLE; NO CLEAN IDLE LABEL REQUIRED	6 GALLON DIESEL EXHAUST FLUID TANK
STANDARD OIL PAN	100 PERCENT DIESEL EXHAUST FLUID FILL
ENGINE MOUNTED OIL CHECK AND FILL	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION
SIDE OF HOOD AIR INTAKE WITH NFPA COMPLIANT EMBER SCREEN AND FIRE RETARDANT DONALDSON AIR CLEANER	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING
DR 12V 275 AMP 40-SI BRUSHLESS PAD ALTERNATOR WITH REMOTE BATTERY VOLTAGE SENSE	STANDARD DIESEL EXHAUST FLUID TANK CAP
(2) DTNA GENUINE, FLOODED STARTING, MIN 2000CCA, 370RC, THREADED STUD BATTERIES	STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILOPIPE SHIELD
BATTERY BOX FRAME MOUNTED	AIR POWERED ON/OFF ENGINE FAN CLUTCH
STANDARD BATTERY JUMPERS	AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED
SINGLE BATTERY BOX FRAME MOUNTED LH SIDE	CUMMINS SPIN ON FUEL FILTER

UNDER CAB	
WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN	COMBINATION FULL FLOW/BYPASS OIL FILTER
NON-POLISHED BATTERY BOX COVER	900 SQUARE INCH ALUMINUM RADIATOR
CAB AUXILIARY POWER CABLE	ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT
POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT
POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES
CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE	RADIATOR DRAIN VALVE
STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR	LOWER RADIATOR GUARD
AIR COMPRESSOR DISCHARGE LINE	PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER
GVG, FIRE AND EMERGENCY SERVICE VEHICLES ENGINE WARNING	BLACK PLASTIC ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR
C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH	ALUMINUM FLYWHEEL HOUSING
RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	ELECTRIC GRID AIR INTAKE WARMER
ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND DASH MOUNTED SINGLE REGENERATION REQUEST/INHIBIT SWITCH	DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH
10 FOOT 06 INCH (126 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT	

## TRANSMISSION

ALLISON 3000 EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION	
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## TRANSMISSION EQUIPMENT

ALLISON VOCATIONAL PACKAGE 198 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODEL EVS	DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES
ALLISON VOCATIONAL RATING FOR FIRE TRUCK/EMERGENCY VEHICLE APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES	VEHICLE INTERFACE WIRING CONNECTOR WITH BLUNT CUTS, AT BACK OF CAB
PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY	ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED
SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY	(2) CUSTOMER INSTALLED CHELSEA 280 SERIES PTO'S
PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	PTO MOUNTING, LH AND RH SIDES OF MAIN TRANSMISSION
SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN
PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED
SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	TRANSMISSION PROGNOSTICS - ENABLED 2013
ENGINE BRAKE RANGE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK
ENGINE BRAKE RANGE ALTERNATE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS	TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK

DEFINED BY ENGINE AND VOCATIONAL USAGE	
FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)

### FRONT AXLE AND EQUIPMENT

DETROIT DA-F-12.0-3 12,000# FF1 71.5 KPI/3.74 DROP SINGLE FRONT AXLE	STANDARD SPINDLE NUTS FOR ALL AXLES
MERITOR 16.5X5 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, PLATINUM SHIELD FABRICATED SHOES	MERITOR AUTOMATIC FRONT SLACK ADJUSTERS
FIRE AND EMERGENCY SEVERE SERVICE, NON-ASBESTOS FRONT LINING	TRW THP-60 POWER STEERING
CONMET CAST IRON FRONT BRAKE DRUMS	POWER STEERING PUMP
FRONT BRAKE DUST SHIELDS	2 QUART SEE THROUGH POWER STEERING RESERVOIR
FRONT OIL SEALS	CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE
VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL	

### FRONT SUSPENSION

12,000# DUAL TAPERLEAF FRONT SUSPENSION	FRONT SHOCK ABSORBERS
MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION	

### REAR AXLE AND EQUIPMENT

RS-23-161 23,000# R-SERIES SINGLE REAR AXLE	FIRE AND EMERGENCY SEVERE SERVICE NON-ASBESTOS REAR BRAKE LINING
5.13 REAR AXLE RATIO	BRAKE CAMS AND CHAMBERS ON FORWARD SIDE OF DRIVE AXLE(S)
IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING	CONMET CAST IRON REAR BRAKE DRUMS
MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	REAR BRAKE DUST SHIELDS
DRIVELINE GUARD	REAR OIL SEALS
DRIVER CONTROLLED TRACTION DIFFERENTIAL - SINGLE REAR AXLE	WABCO TRISTOP D LONGSTROKE 1-DRIVE AXLE SPRING PARKING CHAMBERS
(1) DRIVER CONTROLLED DIFFERENTIAL LOCK REAR VALVE FOR SINGLE DRIVE AXLE	MERITOR AUTOMATIC REAR SLACK ADJUSTERS
BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH	CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE
MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, PLATINUM SHIELD FABRICATED SHOES	

### REAR SUSPENSION

23,000# 52 INCH VARIABLE RATE MULTI-LEAF SPRING REAR SUSPENSION WITH LEAF SPRING HELPER	STANDARD AXLE SEATS IN AXLE CLAMP GROUP
SPRING SUSPENSION - NO AXLE SPACERS	

### BRAKE SYSTEM

AIR BRAKE PACKAGE	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE
WABCO 4S/4M ABS	BW AD-9SI BRAKE LINE AIR DRYER WITH HEATER
REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES	AIR DRYER MOUNTED UNDER HOOD
FIBER BRAID PARKING BRAKE HOSE	STEEL AIR BRAKE RESERVOIRS
STANDARD BRAKE SYSTEM VALVES	BW DV-2 AUTO DRAIN VALVE WITH HEATER - WET TANK
STANDARD AIR SYSTEM PRESSURE PROTECTION	QUICK DISCONNECT FITTING WITH TIRE INFLATION KIT

SYSTEM	
STD U.S. FRONT BRAKE VALVE	

### TRAILER CONNECTIONS

UPGRADED CHASSIS MULTIPLEXING UNIT	UPGRADED BULKHEAD MULTIPLEXING UNIT
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### WHEELBASE & FRAME

4325MM (170 INCH) WHEELBASE	CALCULATED FRAME SPACE RH SIDE : 52.48 in
11/32X3-1/2X10-3/16 INCH STEEL FRAME (8.73MMX258.8MM/0.344X10.19 INCH) 120KSI	SQUARE END OF FRAME
1875MM (74 INCH) REAR FRAME OVERHANG	FRONT CLOSING CROSSMEMBER
FRAME OVERHANG RANGE: 71 INCH TO 80 INCH	STANDARD WEIGHT ENGINE CROSSMEMBER
3 INCH BOLT ON FRONT FRAME EXTENSION	STANDARD CROSSMEMBER BACK OF TRANSMISSION
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 104.72 in	STANDARD MIDSHIP #1 CROSSMEMBER(S)
CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 101.72 in	STANDARD REARMOST CROSSMEMBER
CALC'D FRAME LENGTH - OVERALL : 283.05 in	STANDARD SUSPENSION CROSSMEMBER
CALCULATED FRAME SPACE LH SIDE : 48.77 in	CALCULATED FRAME SPACE RH SIDE : 52.48 in

### CHASSIS EQUIPMENT

THREE-PIECE 14 INCH PAINTED STEEL BUMPER WITH COLLAPSIBLE ENDS	GRADE 8 THREADED HEX HEADED FRAME FASTENERS
FRONT TOW HOOKS - FRAME MOUNTED	3D JT VEHICLE MODEL
BUMPER MOUNTING FOR SINGLE LICENSE PLATE	TANK BODY 1501 TO 3000 GALLONS
FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS	

### FUEL TANKS

50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH	FUEL TANK CAP(S)
RECTANGULAR FUEL TANK(S)	DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR, HAND PRIMER AND 12 VOLT PREHEATER"
PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS	EQUIFLO INBOARD FUEL SYSTEM
FUEL TANK(S) FORWARD	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE
PLAIN STEP FINISH	

### TIRES

CONTINENTAL HSR2 11R22.5 14 PLY RADIAL FRONT TIRES	CONTINENTAL HSR2 11R22.5 14 PLY RADIAL REAR TIRES
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### HUBS

CONMET PRESET PLUS PREMIUM IRON FRONT HUBS	CONMET PRESET PLUS PREMIUM IRON REAR HUBS
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### WHEELS

MAXION WHEELS 90260 22.5X8.25 10-HUB PILOT 6.13 INSET 2-HAND HD STEEL DISC FRONT WHEELS	FRONT WHEEL MOUNTING NUTS
MAXION WHEELS 90260 22.5X8.25 10-HUB PILOT 2- HAND HD STEEL DISC REAR WHEELS	REAR WHEEL MOUNTING NUTS

### CAB EXTERIOR

106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB	STANDARD FRONT TURN SIGNAL LAMPS
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AIR CAB MOUNTING	DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE
NONREMOVABLE BUGSCREEN MOUNTED BEHIND GRILLE	DOOR MOUNTED MIRRORS
SAFETY YELLOW LH AND RH INTERIOR GRAB HANDLES AND LH AND RH EXTERIOR GRAB HANDLES WITH SINGLE RUBBER INSERT	102 INCH EQUIPMENT WIDTH
MOLD-IN COLOR GRILLE	LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS
MOLD-IN COLOR HOOD MOUNTED AIR INTAKE GRILLE	STANDARD SIDE/REAR REFLECTORS
FIBERGLASS HOOD	RH AFTERTREATMENT SYSTEM CAB ACCESS WITH PLAIN DIAMOND PLATE COVER
CAB FLOOR, TOE BOARD AND FIREWALL HEAT SHIELD	COMPOSITE EXTERIOR SUN VISOR
DUAL 26 INCH RECTANGULAR POLISHED ALUMINUM AIR HORNS ROOF MOUNTED	63X14 INCH TINTED REAR WINDOW
DUAL ELECTRIC HORNS	TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS
DUAL HORN SHIELDS	RH AND LH ELECTRIC POWERED WINDOWS, PASSENGER SWITCHES ON DOOR(S)
REAR LICENSE PLATE MOUNT END OF FRAME	LOWER RH DOOR WINDOW WITH FRESNEL LENS
INTERGRAL LED HEADLIGHTS; NON-COMPLIANT WITH FMVSS 108 HEADLIGHT HEIGHT REQUIREMENT	1-PIECE SOLAR GREEN GLASS WINDSHIELD
LED AERODYNAMIC MARKER LIGHTS	2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED
DAYTIME RUNNING LIGHTS	
INTEGRAL LED STOP/TAIL/BACKUP LIGHTS	

## CAB INTERIOR

OPAL GRAY VINYL INTERIOR	SOLID-STATE CIRCUIT PROTECTION AND FUSES WITH SPARE FUSE KIT
MOLDED PLASTIC DOOR PANEL WITHOUT VINYL INSERT WITH ALUMINUM KICKPLATE LOWER DOOR	12V NEGATIVE GROUND ELECTRICAL SYSTEM
MOLDED PLASTIC DOOR PANEL WITHOUT VINYL INSERT WITH ALUMINUM KICKPLATE LOWER DOOR	DOME DOOR ACTIVATED LH AND RH, DUAL READING LIGHTS, FORWARD CAB ROOF
BLACK MATS WITH SINGLE INSULATION	ALL UNIT(S) KEYED ALIKE WITH CUSTOMER SPECIFIED KEY NUMBER FT1010
DASH MOUNTED ASH TRAY(S) WITHOUT LIGHTER	KEY QUANTITY OF 4
NO FORWARD ROOF MOUNTED CONSOLE	LH AND RH ELECTRIC DOOR LOCKS
IN DASH STORAGE BIN	(1) 12V POWER SUPPLY (1) DUAL 2.1 AMP USB CHARGER IN DASH
CENTER STORAGE CONSOLE MOUNTED ON BACKWALL	TRIANGULAR REFLECTORS WITHOUT FLARES
(2) CUP HOLDERS LH AND RH DASH	BASIC ISRINGHAUSEN HIGH BACK AIR SUSPENSION DRIVERS SEAT WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION
GRAY/CHARCOAL FLAT DASH	BASIC ISRI HIGH BACK NON SUSPENSION PASSENGER SEAT
SMART SWITCH EXPANSION MODULE	LH AND RH INTEGRAL DOOR PANEL ARMRESTS
2-1/2 LB. FIRE EXTINGUISHER	BLACK MORDURA CLOTH DRIVER SEAT COVER
HEATER, DEFROSTER AND AIR CONDITIONER	BLACK MORDURA CLOTH PASSENGER SEAT COVER
STANDARD HVAC DUCTING WITH SNOW SHIELD FOR FRESH AIR INTAKE	HIGH VISIBILITY ORANGE SEAT BELTS WITH DRIVER INDICATOR LIGHT AND AUDIBLE ALARM
MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN
STANDARD HEATER PLUMBING	4-SPOKE 18 INCH (450MM) STEERING WHEEL
VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR	DRIVER AND PASSENGER INTERIOR SUN VISORS
BINARY CONTROL, R-134A	
PREMIUM INSULATION	

## INSTRUMENTS & CONTROLS

WOODGRAIN DRIVER INSTRUMENT PANEL	OVERHEAD INSTRUMENT PANEL
WOODGRAIN CENTER INSTRUMENT PANEL	SMARTPLEX HUB MODULE WITH OVERHEAD SWITCH MOUNTING, DRIVER SIDE AND CENTER CONSOLE (12 SWITCH SLOTS)
BLACK GAUGE BEZELS	AM/FM/WB WORLD TUNER RADIO WITH BLUETOOTH, USB AND AUXILIARY INPUTS, J1939
LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM	DASH MOUNTED RADIO
2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES	(2) RADIO SPEAKERS IN CAB
INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS	AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF
97 DB BACKUP ALARM	POWER AND GROUND WIRING PROVISION OVERHEAD
ELECTRONIC CRUISE CONTROL WITH SWITCHES ON AUXILIARY GAUGE PANEL (B DASH PANEL)	ROOF/OVERHEAD CONSOLE CB RADIO PROVISION
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER
ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED	STANDARD VEHICLE SPEED SENSOR
HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH	ELECTRONIC 3000 RPM TACHOMETER
2 INCH ELECTRIC FUEL GAUGE	IDLE LIMITER, ELECTRONIC ENGINE
PROGRAMMABLE RPM CONTROL - ELECTRONIC ENGINE	PRE-TRIP LAMP INSPECTION, ALL OUTPUTS FLASH, WITH SMART SWITCH
ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY
2 INCH TRANSMISSION OIL TEMPERATURE GAUGE	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY
ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH
(2) DASH MOUNTED PTO SWITCHES WITH INDICATOR LAMPS	ALTERNATING FLASHING HEADLAMP SYSTEM WITH BODY BUILDER CONTROLLED ENGAGEMENT
NO DR ASSIST SYSTEM	ONE VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR
ELECTRIC ENGINE OIL PRESSURE GAUGE	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE
	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH STOP LAMPS OVERRIDING HAZARD LAMPS

## DESIGN

PAINT: ONE SOLID COLOR	
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## COLOR

CAB COLOR A: L4664EY RED PIERCE #90 ELITE EY	BUMPER PAINT: N0001EA BLACK ELITE SS
BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT	SUNVISOR PAINTED SAME AS CAB COLOR A
FRONT WHEEL PAINT: N4664EA RED PIERCE #90 ELITE SS	STANDARD E COAT/UNDERCOATING
REAR WHEEL PAINT: N4664EA RED PIERCE #90 ELITE SS	

## CERTIFICATION / COMPLIANCE

U.S. FMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS	TOWING: TOWING: 1 YEAR/UNLIMITED MILES/KM EXTENDED TOWING COVERAGE \$750 CAP FEX APPLIES
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## **TANK / MANHOLES / VENTING**

### **BARREL:**

1800 gallons rectangular oval barrel (55" x 72" x 10' long; approx.) no slope, made of 10-gauge T-304L 2B stainless steel. Tank to be manufactured in an ASME shop possessing a "U" stamp and carry a 5-year leak free warranty

HEADS: Two (2) each stainless steel, T-304L, 10 gauge, slip fit, knuckle flanged with approx. 4" of dish.

BAFFLE(S): Two (2) each stainless steel, T-304L, 10 gauge, 2B finish, air-dished and flanged with 20" staggered crawl hole(s). Top air vent holes and bottom drain holes shall be designed to allow free flow of product and provide complete drainage of the tank.

LONGITUDINAL BAFFLES: Tank shall have long baffles located full length of tank. All baffles shall be in accordance with NFPA requirements.

### WINGS, BOLSTERS, & Z-RAIL:

Boxed wing and bolster assemblies with "Z" rail frame shall be made of stainless steel.

### **MOUNTING:**

Heavy Duty spring loaded mounting assemblies installed along tank frame as required with rubber mounting sill installed full length of tank between chassis and tank frame; rubber sill shall be vulcanized to a stainless-steel backing plate. No hard fixing of tank frame to chassis shall be used

### **WELD FINISH:**

INTERIOR: Weld finish to be W-1 inside

EXTERIOR: Weld finish to be W-2 outside.

### **MANHOLE:**

One (1) each, Knappco (#LE3310) 20", T-304 stainless steel, quick opening, with a single cam latch and Black Buna-N lid gasket. Manhole to be located top center at rear, hinged at front.

### **OVERFLOW, VENT PIPE:**

A 4" overflow shall be provided to prevent damage to the tank when being filled from a hydrant. All excess water discharged from the overflow system shall be discharged onto the ground behind the rear axle.

### **ANODE ROD:**

Six (6) each 2" X 48" Anode rods located top of the tank along the center line; one (1) for each baffled section.

### **SIGHT GAUGE:**

One (1) each 5/8" round acrylic liquid level sight tube assembly with fitting at top and shutoff valve with drain cock at bottom. Red ball installed inside tube. Gauge to be located at rear head.

## **LADDERS / WALKWAYS / SPILLDAMS**

### **SPILLDAM:**

Full length stainless "V" rails on each side top of tank

**WALKWAY:**

Non-skid tape in spilldam area.

**LADDER:**

Stainless steel tubular ladder with heavy duty slip resistant steps and platform step at top that includes extensions to each side for light bracket mounting. Located at rear.

**NFPA LIGHTING****CODE 3 NFPA LED LIGHTING PACKAGE LESS LIGHT BAR:**

A Code 3 lighting package shall be installed on the apparatus. The following lights shall be provided:

- Lower Zone "A" - 2 EA Model LXEX1F-R single red LED lights in polished aluminum housings with red outer lens.
- Upper Zone "B" - 1 EA Model LXEX2F-AA amber/amber dual stack LED in polished aluminum housings with amber/amber outer lenses (Mount at upper rear drivers corner)
- Upper Zone "C" - 2 EA Model LXEX2F-AA amber/amber dual stack LED in polished aluminum housings with amber/amber outer lenses (Mount on drivers upper rear corner).  
- 2 EA Model LXEX2F-RR red/red dual stack LED in polished aluminum housings with red/red outer lenses (Mount on passengers upper rear corner)
- Lower Zone "C" - 2 EA Model LXEX1F-R single red LED lights in polished aluminum housings with red outer lens.
- Upper Zone "D" - 1 EA Model LXEX2F-RR red/red dual stack LED in polished aluminum housings with red/red outer lenses (Mount at upper rear passengers corner)

**LIGHT BAR LED:**

One (1) CODE 3 LED 2169 NFPA series light bar 69" long, mounted on cab roof with permanent mounting brackets shall be provided.

**SIREN:**

A Code 3 3492L6S Master Com siren control shall be provided. Siren to have wail, yelp and hi-low tones as the tap feature. Siren to include public address (PA), air horn sound and 6 switches.

**SPEAKER:**

One (1) 100-watt siren speaker/s shall be mounted in the front area of the unit.

**AIR HORN:**

A Grover Model #1512, chrome plated brass, stuttertone air horn shall be supplied.

Air horn shall have an electrically activated air solenoid valve, activated from foot switches located in the cab, one (1) within easy reach of the driver and one (1) for the passenger.

**DOOR AJAR INDICATOR LIGHT:**

One (1) open compartment flashing red warning light, located inside the cab shall be provided.

**GROUND ILLUMINATION LIGHTS:**

Ground illumination lights shall be provided and located per NFPA.

**DOT LIGHTS AND WIRING**

**LIGHTS AND WIRING:**

Two (2) each red L.E.D. stop/tail/turn lights shall be mounted in the rear of each fender skirt at the rear of the truck and enclosed within a box.

**MARKER LIGHTS:**

One turn signal light mounted each side of body shall be provided per DOT specifications.

**BACK-UP LIGHTS:**

Two (2) each Truck-Lite model 44 L.E.D. back-up lights (# 44040C kit), installed in rear light boxes (inner hole/one each side).

**REFLECTORS:**

To be mounted per D.O.T. specifications.

**SCENE LIGHTS:**

Six (6) stainless steel brackets off tank, two each side front and rear for scene lighting  
Six (6) Whelen Pioneer Plus Series, Model PCH2B LED flood lights with Whelen 15o down angled model PBH203B recessed flange mounts

**CONDUIT:**

1" Stainless steel from top of scene light brackets to inside of top rails  
1-1/2" Stainless steel trough top of tank to inside truck frame

**PLUMBING**

**DIRECT TANK FILL:**

One (1) 2-1/2" Akron valve with downward angled spout with drain port and valve, female NST connection, located on the rear head

**REAR DUMP:**

One (1) each manually operated AH Stock Newton 36" Telesco dump chute located at bottom of rear head

**FOAM SYSTEM:**

FOAM-PRO Model 2001 with a 2" HYPRO FLOWMETER TEE Model 2660-0021.

FOAM-PRO GPM/Totalizer display along with the foam on/off switch and foam concentrate tank low level light, shall be mounted in the master gauge panel. A check valve shall be provided in the discharge line to isolate the foam from the rest of the water plumbing. Foam discharge line shall be equipped with a 3/4", brass drain valve.

Maximum foam concentrate capacity at 150 psi 2.6 GPM

Maximum operating pressure 400 psi

Accurate Proportioning percentage range from 0.1 to 3.0 plus

Push button control

Maximum Water flow capacities at different percentage settings, water flows are dependent upon water pump selection.

0.2 percent, 1300 GPM

0.5 percent, 520 GPM

1.0 percent, 260 GPM

3.0 percent, 85 GPM

**FOAM TANK:**

A stainless-steel pipe 40-gallon foam tank shall be installed as an integral part of the water tank. There shall be a 6" fill camlock and cap with breather vent at the top of the foam tank. Liquid level and outlet fittings shall be located at the bottom of the tank.

**PUMP MODULE:**

The pump enclosure shall be modular in design and constructed of 1-1/2" X 1-1/2" X .12 steel square tubing. The apparatus body and pump enclosure shall not be fastened together in any manner. This shall prevent any cracking of the body or pump enclosure.

**PUMP PANEL:**

The pump controls and gauges shall be located at the left side of the apparatus and be labeled. Pump panels on both sides shall be easily removable. The gauge and control panels shall be two separate panels for ease of maintenance. The panels shall be 12-gauge brushed stainless steel for maximum protection against abrasion caused during normal use.

The upper gauge panel shall have a full-length stainless-steel hinge and latching mechanism. There shall be one hinged access door over the right-side pump panel. This door shall have a full-length stainless-steel hinge and latching mechanism.

**MASTER GAUGES:**

Two (2) Dry back lit Gauges, (1) pressure gauge and (1) vacuum gauge shall be provided. The gauges shall be 4-1/2" in diameter with white face and black lettering.

**TEST PORTS:**

Vacuum/Pressure connections for testing the water pump shall be provided. Connections shall be located on the pump panel.

**ELECTRICAL SYSTEM INTEGRATION:**

The body electrical system shall be designed to utilize the Chec System. The Electrical system shall be installed by factory certified level three facility. The integrated electrical system will be comprised of the vehicles (ESC) Electrical System Controller, Power modules and engineered harnesses system. These components interface to the apparatus components through the J1939 data link. The use of Chec Logic Integration shall link all vital electrical functions of the build up together. Including but not limited to the PTO controls, Emergency lighting, Work lighting and Compartment lighting.

**(ESC) ELECTRICAL SYSTEM CONTROLLER:**

The ESC communicates with the switch packs on the switch data link, controllers from other features on the power train link and remote power modules on the body builder data link. It also receives inputs from various sensors and hard-wired inputs throughout the apparatus. The ESC converts these inputs, in accordance with the programmed "rules", into data to be transmitted on the data links. It is also the power source for circuits that feed the components, controlled by the multiplexed switches, inside and outside of the cab.

**(RPM) REMOTE POWER MODULE:**

High and low relays off ESC

**WIRING HARNESES:**

Separate wiring harnesses shall be provided for the left and right side of the body, pump panel and the cab. Wiring to be circuit function imprinting. Wiring shall be installed in a loom. Harnesses will be connected to the chassis' electrical system shall be equipped with Deutsch type contacts/connectors. All wiring used by Body builder shall be type GXL cross-link wire. The complete body electrical system shall be documented and contain independent circuit diagrams with point wiring information, as well as a general component diagrams.

**ELECTRICAL LOAD MANAGER:**

Kussmaul auto Charge 1000 with Auto Eject

**MAP LIGHT:**

One (1) gooseneck type map light with red lens supplied, shall be installed in cab on the right side, passenger location.

**HEADLIGHT FLASHER:**

A Headlight Flasher shall be provided and controlled from the position 3 of the slide bar. The head light flasher shall be an integral part of the chassis. No mechanical relays or flashers shall be used to accomplish the alternating headlight function. The head light flasher shall be automatically activated when the siren control head is in position three and the parking brake is released. The head light flasher function when activated shall automatically shut down when a request for high beams is present with the head lights on or the parking brake set.

**12 POWER POINT:**

There shall be one (1) 12 Volt DC universal lighter/ power supply provided inside the cab and shall be wired "Hot" with individual breakers.

**TANK LEVEL GAUGE DISPLAY:**

One (1) each Class 1 tank level gauge with Mini Dash Indicator located inside of cab on control panel within full view of driver.

**PUMP PANEL LIGHTS:**

Pump panel lights shall be installed on the left & right-side pump panels. The lights shall be controlled by a switch on the left pump panel.

**PRESSURE GOVERNOR and ENGINE MONITORING DISPLAY**

Fire Research PumpBoss series PBA201-D00 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8". 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 engine information and outputs for engine control shall be on the J1939 databus. Input from the pump discharge pressure sensor shall be electrical.

The following continuous displays shall be provided:

- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Check engine and stop engine warning LEDs
- Engine 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
- Pressure and RPM operating mode LEDs
- Pressure / RPM setting; shown on a dot matrix message display
- Throttle ready LED.

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 located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

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 and display shall be programmed to interface with a Cummins engine.

**PUMPING SYSTEM:**

**POWER TAKE OFF AND DRIVE LINE:**

PTO to be a “HOT SHIFT” direct drive, mounted to the transmission. Activation shall be from a control located in the cab within easy reach of the driver. A drive line shall be connected from the PTO to the pump. It shall be the proper series and type to meet pump and PTO manufactures specifications.

**PTO OVERSPEED PROTECTION:**

Unit shall have provisions to protect the PTO from overspeed.

**PUMP TEST**

A pump test per NFPA shall be performed to rated capacity of the pump.

**HALE CBP PTO PUMP:**

A Hale model CBP single stage centrifugal booster pump shall be provided. The pump is driven by the truck transmission power take-off. It features a cast iron pump body, heavy-duty gear box, self-adjusting

mechanical seal, and a bronze mixed-flow impeller design. Fully meets NFPA 1901 standards for auxiliary pump applications. Non-rated performance will provide volumes up to 400 GPM at 100 PSI from booster tank operation; 250 GPM @ 150 PSI; 50 GPM @ 400 PSI  
Hard, fine grain bronze, mixed flow impeller design

**RELIEF VALVE:**

Hale relief valve shall be mounted directly to the pump and connect the discharge side of the pump to the intake side of the pump. Relief pressure control is operated from the left side pump panel.

**SPRAY SYSTEM:**

**DISCHARGE PLUMBING:**

Discharge plumbing shall be plumbed to a 4" stainless steel manifold. Manifold shall have Victaulic coupling provisions for easily adding any available pump discharge plumbing option, including spray heads, discharges

**TANK RETURN:**

A 1/4" tank return line with ball valve and check valve shall be located on the discharge side of the pump. This line will allow the pump to "slip" water back into the tank when the pump is running with all discharges and spray heads closed ("dead-heading" the pump).

DISCHARGE OPTIONS, S/S PLUMBING (DUST CONTROL TT)

**DISCHARGE LEFT SIDE:**

One (1) 2.50 discharge with Akron valve located on the left side shall be provided. A chrome plated cap and chain shall be provided.

**DISCHARGE, RIGHT SIDE:**

One (1) 2.50 discharge located on the right-side pump panel shall be provided. Discharge shall be push/pull controlled at the left side pump panel. A chrome plated cap and chain shall be provided.

**1-1/2" DISCHARGES:**

Plumbing that supplies the valves shall be 2" high pressure hose, 2" sch 40 stainless steel pipe with in-line check valve, foam flow meter and foam injection point Tee'd to sides.

**VALVES:**

One (1) 1.50" discharge valve Akron located on the left side shall be provided.

Valve shall have a chrome plated rocker lug cap and chain. Control with push pull control.

One (1) 1.50" discharge valve Akron located on the right side shall be provided. Plumbing that supplies the valve shall be 2" sch 40 stainless steel pipe. Valve shall have a chrome plated rocker lug cap and chain.

Control with push pull control.

**DRAFT CONNECTIONS:**

One (1) 2-1/2" locking bronze valve with female NST draft connection fitting with male adapter, debris screen, and tethered cap shall be located on inlet side of pump behind cab at roadside. A butterfly valve shall be supplied in line between the pump supply line and the connection fitting.

One (1) 4" suction inlet located on the left side of the apparatus, shall be provided. Inlet shall have a chrome plated adapter with screen, cap and chain. All plumbing shall be stainless steel.

**3" TANK TO PUMP SUCTION**

A 3" tank to pump suction line shall be provided. Valve shall be air operated and controlled from the operators pump panel. The pump intake shall incorporate a check valve to prevent backflow to tank if the pump is being supplied from a pressurized source.

An anti-vortex straight blade shall be installed inside of tank at outlet to pump.

**TANK FILL:**

One (1) 2" Akron tank fill valve with push/pull control shall be provided on the pump panel

**PRIMER:**

The priming pump shall be a positive displacement, oil-less rotary vane electric motor driven pump. The pump body shall be manufactured of heat-treated anodized aluminum for wear and corrosion resistance. The electric motor shall be a 12 Volt DC totally enclosed unit. The priming pump shall not require lubrication. It shall be operated by a single push-pull control valve mounted within easy access of the operator. The control valve shall be of all bronze construction.

**FRONT SPRAY HEAD PACKAGE:**

Two (2) 3" fully adjustable grooved nozzle B-MAC spray heads shall be mounted at front of truck on stainless steel distribution bar with Victaulic connections. Spray heads shall be capable of adjusting pattern and volume.

**REAR SPRAY HEAD PACKAGE:**

Two (2) 3" fully adjustable grooved nozzle B-MAC spray heads shall be mounted at rear of truck on a stainless-steel distribution bar with Victaulic connections. Spray heads shall be capable of adjusting pattern and volume.

**MONITOR (WATER CANNON):**

None. Connection on front bumper for future use

**SIDE SPRAY(S):**

None. (Available as option upon request)

**LOW POINT DRAINS:**

Low point drains shall be installed in all plumbing.

**HOSEREEL(S):**

None. (Available as option upon request)

**CONTROLS:**

Console between seats with pressure gauge and switches controlling each dust control spray head shall be mounted inside the cab. Each switch shall be labeled for function.

One (1) Class-1 level gauge located on control panel with pressure transducer.

**FENDERS / BUMPERS / ETC.**

**BUMPER:**

4" x 4" carbon steel with 4" doubled section at center to act as rear platform access

**REAR DECK:**

Aluminum diamond plate rear deck 30" deep x 96" wide prox shall be installed at the rear of the unit.

The platform shall include a rear bumper cap and include the rear DOT lights and recessed license plate

**TOW EYE(S):**

Two (2) Each tow eye(s) installed on unit at rear bumper.

**FENDERS HOUSING:**

Aluminum fender housing shall be installed over rear wheels and include side skirt and under fender lining and black rubber fender skirt trim

Mudflaps to be black rubber with West-Mark logo. Mudflap mounting to meet SAEJ682 standard.



## **MISC. ITEMS**

### **COMPARTMENT, LEFT AND RIGHT SIDE:**

One (1) compartment located directly in front of the rear axles (each side) shall be provided. Approximate dimensions shall be 54"W x 30"H x 26"D. Compartment shall be sweep out style with two flush overlapping doors. Each door shall have stainless steel hinges, neoprene bulb type seals and spring type door stays. A drip molding shall be formed into the cabinet top. The latching door shall have keyed T-latch.

### **CABINET DOME LIGHT:**

Two (2) Each L.E.D. dome light with switch and mounted inside cabinet.

DOOR STAYS: Installed on all doors for holding doors in the open position while in use.

LOCATION: Cabinet located at side of chassis frame with Heavy Duty mounting brackets.

### **HOSE TUB:**

Three (3) each Aluminum fabricated lay flat hose tubs with containment straps located on rear deck curbside at rear of hose trays and one at curbside front of hose tray

### **HOSE TRAYS:**

Two (2) aluminum hose trays located each side on top of cabinets and fender skirts

### **CHOCK BLOCKS :**

Two (2) Zico AC-44 wheel blocks shall be provided mounted under rear deck curbside

### **SAFETY TRIANGLE KIT:**

One (1) Each emergency warning triangle kit (includes 3 safety triangles) shall be supplied with chassis.

### **NFPA 1901 COMPLIANCE:**

Customer to provide radios and all NFPA required loose equipment

Vendor to provide NFPA 1901 certificate of compliance. Includes a computer generated (Theoretical)Tilt test per 4.13.1.1 (2)

## **PAINT AND DECALS:**

### **PAINT BODY:**

All exposed metal surfaces that are not chrome plated or stainless steel shall be thoroughly cleaned, prepped, and painted with Acrylic Urethane paint. Application shall be in strict accordance with the paint manufacturer's instructions, including the number of coats and dry mill thickness. Paint color to be Red and match Chassis cab color. Compartment interiors shall have a "cobweb" splatter style finish. The color shall be white with black "cob webbing".

### **STRIPING:**

4" wide white reflective stripe shall be provided. Stripe shall start at the bottom of the cab doors and run the full length of the side of the apparatus. Stripe is to be broken for the operator's stand, top of stripe to be approximately even with the compartment door latch tops. The stripe shall also run across the rear of body and cover a portion of the front of the unit.

### **CHEVRON STRIPING:**

At least of 50% of the rear vertical surfaces of the apparatus shall be equipped with a minimum 4-inch alternating chevron retro reflective striping sloping downward and away from the centerline of the vehicle at an angle of 45 degrees.

### **MANUALS:**

One (1) each operation and maintenance manual(s) in paper format and one (1) each operation and maintenance manual(s) on CD-ROM (in PDF format) shall be supplied and shipped with unit; complete with the following:

- Operator & maintenance manual
- Calibration chart (if applicable)
- Equipment parts list
- Misc. vendor literature / manuals

**CALIBRATION:**

Theoretical, in 1/4" increments, complete with charts.

**PUMP TEST:**

Pump test with documented pressures and flows

**DOCUMENTS:**

The following items shall be delivered with the completed apparatus:

- (2) Pump test certifications.
- (1) Vehicle weight certificate.

**INSPECTIONS:**

Post award meeting to be held at customer's location no more than 30 days after award. Drawing review package to be provided to customer no more than 90 days after award. Mid build, pre-paint inspection to be held at manufacturer's facility. Final inspection and testing to be held at manufacturer's facility.

**TESTING AND QC:**

An internal final Inspection shall be performed prior to, and in preparation of a customer/government inspection. Unit shall be prepped to perform a function test of all functions in presence of inspector(s) before the inspector(s) arrive.

**APPARATUS ROAD TEST:**

The apparatus shall be certified to meet its applicable road test per NFPA.

**TRAINING:**

Up to two days of operation and maintenance training for Body and pumping system shall be provided at customer's facility.

*NOTE: Any and all brand name parts mentioned in specifications above are subject to substitution of an equal part that is of a different brand. Other substitutions may also be made if said substitution does not affect the intended function of the vehicle's mission and is equivalent or an upgrade as determined by the Moraga-Orinda Fire District.*

**BODY WARRANTY:**

The manufacturer shall provide warranty for the fire apparatus body. It shall be free from defects in material and workmanship, while under normal use and service by the original purchaser, for a period of ONE (1) year from its in-service date.

**LIMITED EXTENDED TANK WARRANTY:**

The fire apparatus manufacture shall provide a Five (5) year limited water tank warranty covering defects in material and workmanship.

**WARRANTY CENTER:**

Chassis:

NAME; \_\_\_\_\_  
CONTACT NAME; \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

**Body:**

Manufactures stainless steel tank repair shop with ASME "R" stamp.

NAME: \_\_\_\_\_

CONTACT NAME: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

**DELIVERY F.O.B.:**

Destination.

**INSPECTION, TESTING AND ACCEPTANCE:**

At manufacturers - dealers location

Travel, food and hotel costs to be assumed by seller if inspection site is located more that 1000 miles from the Moraga-Orinda Fire District.

## **SECTION THREE – PROPOSAL REQUIREMENTS AND BIDDER QUALIFICATIONS**

### **POSTING OF SURETY (PERFORMANCE) BOND**

Bidder shall post surety as a condition of the filing of bid to MOFD.

### **PROPOSAL**

Interested parties will provide a detailed specification build list with complete proposal cost of the tactical water tender as described in section two.

Bidders should provide the following items as part of their proposal:

- Pricing - Proposals shall include all-inclusive pricing.
- Proof of current membership registration with the System for Award Management (SAM.gov).
- Proof of Commercial General Liability Insurance: Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action for bodily injury, death, personal injury and property damage which may arise out of the operations of the consultant (with coverage at least as broad as ISO form CG 00 01 01 96) and in an amount not less than \$1,000,000 per occurrence/\$2,000,000 aggregate.
- Proof of Automobile Liability Insurance: Consultant shall maintain automobile liability insurance (with coverage at least as broad as ISO form CA 00 01 07 97, (for “hired and non-owned auto”) for the term of this Agreement covering any loss of liability, including the cost of defense of any action, arising from the operation, maintenance or use in an amount not less than \$1,000,000 per accident for bodily injury and property damage. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
- Ability to deliver finished tactical water tender to MOFD by December 2024.
- Must have technical staff to answer follow up questions regarding equipment usage.

### **PROPOSAL REQUIREMENTS**

This RFP represents the requirements for an open and competitive process. Proposals must be received no later than 9:00 AM PDT on November 1, 2022. Late submissions after the deadline or proposals delivered via fax or postal service will not be accepted.

**Proposals must be submitted via email to:**

[llambert@mofd.org](mailto:llambert@mofd.org)  
Lucas Lambert  
Battalion Chief

Costs included must be all-inclusive. MOFD’s Standard form contract is required and will include scope, budget, schedule and other necessary items pertaining to services.

## **SECTION FOUR – PROPOSAL EVALUATION & SELECTION CRITERIA**

MOFD will evaluate all proposals based on the following criteria:

Overall proposal suitability: Proposal must meet the functional requirements and scope included herein and be presented in a clear and organized manner.

- Organizational Experience: Bidders will be evaluated on their experience as it pertains to the scope of this project.
- Previous work: Bidders will be evaluated on examples of their work pertaining to application as well as client references.
- Value and cost: Bidders will be evaluated on the cost of their proposal
- Technical expertise and experience: Bidders must provide descriptions and documentation of expertise and experience.
- Bidders who are not able to carry out the full scope of work as described will not be considered.

### **SELECTION CRITERIA**

Any false, incomplete or otherwise unresponsive statements in connection with a proposal or any documentation or other information supplied to the District by the proposer may be cause for rejection by the District of the proposal or disqualification of the proposer at the District's sole discretion.

### **FINAL COMMENTS**

The District reserves the right to reject any and all proposals, cancel all or part of this RFP, and waive any minor irregularities and to request additional information from proposing firms. By requesting proposals, the District is in no way obligated to award a contract or pay expenses of the proposing firms in connection with the preparation or submission of a proposal.

The District appreciates the efforts of all the firms and their respective staffs in responding to the RFP.