

### Attachment A – General Requirements and Specifications

The Proponent must agree to be compliant with the following requirements for the entire duration of the contract. Please provide a detailed response to the requirements listed below to prove compliance with each requirement.

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
1	<b>PROPONENT PROFILE</b>		
	The Proponent must be the Manufacturer of the proposed Pumper apparatus or an Authorized Distributor.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	<b>CERTIFICATION REQUIREMENTS</b>		
	The successful Proponent must provide proof of the following certifications: <ul style="list-style-type: none"> <li>• The vehicle body and all components shall comply with NFPA 1901 Certification (Current Edition);</li> <li>• Documentation to confirm the vehicle has been inspected to the Highway Traffic Act of Ontario, RSO 1990, as amended requirements and conforming annual inspection sticker shall be applied to the vehicle prior to delivery of the vehicle to the Township;</li> <li>• The complete apparatus shall be certified and tested to the CAN/ULC=S515-13 Automobile Fire Fighting Apparatus Standard and the vehicle shall bear the ULC mark, indicating compliance to the Standard; and</li> <li>• The Manufacturer shall furnish copies of the vehicle manufacturer's Certification of Hydrostatic Test and the engine manufacturer's current Certified Brake Horsepower curve.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	<b>COMPLETION INFORMATION</b>		
	The Manufacture shall supply, at the time of delivery, at least one (1) copy of the following documents: <ul style="list-style-type: none"> <li>• Owner's name and address Apparatus manufacturer, model and serial number</li> <li>• Chassis make, model and serial number</li> <li>• Front tire size and total rated capacity in pounds</li> <li>• Rear tire size and total rated capacity in pounds</li> <li>• Chassis weight distribution in pounds with water and manufacturer mounted equipment, front and rear</li> <li>• Engine make, model, serial number, rated horsepower, rated speed and governed speed</li> <li>• Type of fuels and fuel tank capacity</li> <li>• Electrical system voltage and alternator output in amps.</li> <li>• Battery make, model and total capacity in cold crank amps (CCA)</li> <li>• Transmission make, model, and serial number.</li> <li>• Pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number</li> <li>• Pump transmission make, model, serial number and gear ratio</li> <li>• Water tank certified capacity in gallons or liters</li> <li>• Paint manufacturer and paint number(s)</li> <li>• Company name and signature of responsible company representative</li> <li>• Certification of slip resistance of all stepping, standing and walking surfaces.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<b>DELIVERY</b>		
	All prices must be quoted F.O.B. DESTINATION – FREIGHT PREPAID to be delivered to the Corporation of the Township of South-West Oxford Administration Building at 312915 Dereham Line, Mt. Elgin ON. The delivery will take place as expeditiously as possible, and the proponent will indicate the latest expected delivery date.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The Township reserves the right to add and/or change delivery locations, if necessary, to another location within the Township boundaries at no additional charge.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The successful Proponent shall bear full responsibility (including damage claims) and liability for all contracted equipment in transit to the Township. The Township will not be responsible for damage claims with the successful Proponent's carrier whether damage to a shipment is either visible or later found to have been concealed during shipment.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	The Pumper will be delivered complete in all respects and will be subject to inspection by the Township's Fleet Manager and the Fire Chief, to ensure it has met all aspects of the RFP prior to the Fire Chief signing off on the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Delivery time and date shall be arranged with Fire Chief a minimum of two (2) weeks in advance of the proposed delivery date.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The successful Proponent must ensure that all training as stipulated within this RFP is conducted at a location as agreed upon by the Fire Chief within ten (10) days of delivery of the Pumper apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<b>NFPA 2016 STANDARDS</b>		
	<p>This unit shall comply with the NFPA 1901-2016 Edition. Certification of slip resistance of all stepping, standing and walking surfaces shall be supplied with delivery of the apparatus. A plate that is highly visible to the driver while seated shall be provided which states the overall height, length, and gross vehicle weight rating.</p> <p>The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company/manufacturer shall designate, in writing, which is qualified to witness and certify test results.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<b>CANADIAN UNDERWRITERS' LABORATORIES CERTIFICATION</b>		
	<p>An Underwriters Laboratories of Canada (ULC) fire pump performance and rating label shall be installed on the fire apparatus pump panel. The label shall denote levels of pump performance and testing completed at the factory. These shall include LPM or IGPM at net pump pressure, RPM at such level, and other pertinent data as required by applicable ULC S515 standards (current edition). In addition, the pressure control device, tank to pump flow tests, completed apparatus weight, braking, center of gravity (2013), and other required testing shall be completed.</p> <p>The entire pump, suction and discharge passages shall be hydrostatically tested to a pressure of 3400 kPa as required by ULC 15.5.2. The pump shall also be fully tested at the pump manufacturer's factory to the performance specifications as outlined by applicable NFPA standards. Pump shall be free from objectionable pulsation and vibration.</p> <p>If applicable, the fire pump shall be tested and rated to S515-15.2.2 as follows:  100% of rated capacity at 1000 kPa net pressure  70% of rated capacity at 1350 kPa net pressure  50% of rated capacity at 1700 kPa net pressure</p> <p>The test shall be performed on site by UL/ULC staff and shall include a listing of the apparatus as a Fire Fighting Appliance. The manufacturer shall be ULC certified as a listed fire firefighting appliance manufacturer. The ULC acceptance certificate shall be furnished with the apparatus on delivery.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<b>FIRE ULC PUMP TEST</b>		
	The pump shall be tested as LPM (Liters per Minute)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<b>PERFORMANCE WATER FLOW TESTING</b>		
	<p>The waterway flow test shall be conducted by an accredited third-party testing organization with certified results provided on delivery of the apparatus. If the water system has been modified from the standard model configuration, a new flow test shall be conducted to determine that the friction loss in the water system between the base of the swivel and the monitor outlet does not exceed 100 psi (700 kPa) with 1,000 gpm (3748 L/min) flowing and with the water system at full extension.</p> <p>Where the apparatus is equipped with a fire pump designed to supply the water system, the test shall be conducted using the onboard fire pump. The intake pressure to the fire pump shall not exceed 20 psi (140 kPa).</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
9	<b>FAILURE TO MEET TESTS</b>		
	In the event the Pumper fails to meet the test requirements of these specifications on the first trial, a second trial may be made at the option of the Proponent and at the Proponent's expense within thirty (30) days of the date of the first trial. Such trials shall be final and conclusive, and failure to comply with these requirements shall be cause for rejection. Failure to comply within thirty (30) days after notice is given to the Proponent of such changes that the Township may consider necessary to conform to any clause of the specifications shall be cause for the rejection of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Permission to keep or store the Pumper in any building owned or occupied by the Township or its use by the Fire Department during the above-specified period with the permission of the Proponent shall not constitute acceptance.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	<b>INSPECTION</b>		
	<p>The Vendor shall deliver the vehicle(s)/equipment to:  Township of South-West Oxford' Public Works Department  312917 Dereham Line, R1  Mt. Elgin, ON  N0J 1N0</p> <p>The successful bidder must notify the Township two (2) weeks prior to the delivery date. All delivery charges are to be included in the Tender Bid.</p> <p>Upon delivery of the vehicle(s), Township staff will inspect the vehicle/equipment and confirm that the vehicle/equipment matches the specifications as outlined in the Vendor's tender submission.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	<b>SERVICE CENTER AND PARTS DEPOT</b>		
	<p>Each Proponent must prove they have and will maintain an established service center and parts depot capable of satisfying the warranty service and parts requirements for the model bid.</p> <p>The bidder shall provide a "24 Hour", "7-Day Per Week" emergency parts and service toll free telephone number. This phone number must be included in the bid package, along with the contact name, business name, address, and phone number of the local service agency, which will service the vehicle after being placed into service. <b>(Mandatory Requirement)</b></p> <p>In addition, the successful Vendor shall maintain a separate service facility at the manufacturing site, in order to satisfy the need for major emergency service work.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	<b>LOCAL REPRESENTATION</b>		
	The manufacturer shall demonstrate they have an established regional representative, and the representative will remain in place. This representative shall be knowledgeable with respect to the sale and service of fire apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The manufacturer shall identify their ability to provide factory-trained technicians who are able to service and maintain the apparatus at the Township's location.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	<b>OTHER CONDITIONS</b>		
	The successful Proponent shall supply a detailed weight analysis as per the current edition of NFPA Standard 1901, as well as a certified weight scale ticket of the completed apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The successful Vendor shall provide certification of electrical system testing as per the current edition of NFPA Standard 1901 for the 12 Volt and 110 Volt electrical systems.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The successful Proponent shall provide certification of the warning light systems compliance to the 2016 Edition of NFPA Standard 1901.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The successful Proponent shall provide full on-site training for fire fighters on the operation and maintenance of the apparatus at the designated fire station. No apparatus will be considered in service until training is complete.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
14	<b>OPERATION AND PARTS LIST MANUALS</b>		
	Each cab and chassis shall include two (2) electronic copies of the operation manuals and parts listings at the time of delivery of the apparatus. The manuals shall include information specific to the components included on the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
15	<b>ENGINE AND TRANSMISSION MANUALS</b>		
	One (1) paper and one (1) electronic copy of the specific engine and transmission manuals shall accompany each cab and chassis at the time of delivery of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
16	<b>AS BUILT WIRING DIAGRAMS</b>		
	The Proponent shall include one (1) digital copy of the wiring schematics and component wiring for the body and any auxiliary components added to the chassis and cab which are not part of the original manufacturing of the cab and chassis at the time of delivery of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
17	<b>ROAD SAFETY KIT</b>		
	The Township/Purchaser will supply a MTO Road Safety Kit and Fire Extinguisher.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
18	<b>OVERALL DIMENSIONS</b>		
	The maximum length, height and width of the apparatus shall not exceed the length, height and width limitations prescribed under the current edition of the Highway Traffic Act of Ontario.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
19	<b>WEIGHT AND BALANCE CALCULATION</b>		
	<p>The apparatus, prior to acceptance will be required to meet the vehicle stability of the applicable NFPA or ULC automotive fire apparatus standard.</p> <p>A calculated center of gravity shall be performed to ensure the apparatus meets these requirements. The calculated center of gravity shall be no higher than 80 percent of the rear track axle width.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

## CHASSIS AND BODY

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
1	<b>CARRYING CAPACITY PLATE</b>		
	A warning label shall be provided in the cab within sight of the driver stating: <ul style="list-style-type: none"> <li>• the seating capacity of the cab/crew cab; and</li> <li>• that the occupants must be seated and belted.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	<b>VEHICLE DIMENSION PLATE</b>		
	A warning label shall be provided in the cab within sight of the driver stating the following apparatus dimensions: <ul style="list-style-type: none"> <li>• Height and length in standard and metric measurements.</li> <li>• Gross vehicle weight rating in pounds and kilograms.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	<b>DIELECTRIC VOLTAGE TESTING</b>		
	The wiring and permanently connected devices and equipment shall be subject to a dielectric voltage withstand test of 900 volts for one minute. The testing shall be performed after all body work has been completed. The electric polarity of all permanently wired equipment, cord reels, and receptacles shall be tested to verify that wiring connections have been properly made.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<b>FLUID CAPACITY AND TYPE LABEL</b>		
	A permanent label shall be provided and shall state the type and quantity of the following fluids used in the vehicle: <ul style="list-style-type: none"> <li>• Engine Oil</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	<ul style="list-style-type: none"> <li>• Engine Coolant</li> <li>• Chassis Transmission Fluid</li> <li>• Drive Axle Fluid</li> <li>• Pump Gear Case</li> <li>• Primer Lubricant (If Applicable)</li> </ul>		
5	<b>TIRE PRESSURE MONITORING - VISUAL</b>		
	There shall be a visual six (6) wheel tire pressure system supplied that monitor all of the tires on the apparatus. A LED valve cap shall be attached to the tires valve-stem that contains a Pressure Sensor to alert of a developing tire problem.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<b>CHASSIS SPECIFICATIONS</b>		
	<p>A Freightliner or International four door commercial chassis designed for emergency service use shall be supplied the following minimum specifications.</p> <ul style="list-style-type: none"> <li>• Minimum of 41600 lb. GVWR: 14,600 LB Front/27,000 LB Rear</li> <li>• Diesel Engine, minimum 360 horsepower, 860-1250 lb-ft torque</li> <li>• Allison Automatic Transmission, with ISCAN performed by Dealer</li> <li>• Air Conditioning and</li> <li>• Leaf spring suspension</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<b>REMOTE AIR TANK LANYARDS</b>		
	Provisions shall be made for remote air tank drain lines mounted on the road side of the apparatus. The lanyard end shall be a hand grip type.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<b>FRONT BUMPER EXTENSION</b>		
	The front bumper shall be extended forward 20" and reinforced as required to sustain the load intended.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	<b>BUMPER EXTENSION CHECKPLATE APRON</b>		
	An aluminum checker plate apron shall be installed between the front of the cab and the extended front bumper. This apron shall be trimmed as required to fit the contour of both the cab and the bumper.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	One (1) aluminum hose bin(s) shall be installed in the front checker plate apron. The hose bin(s) shall have a capacity to hold at least 150 of 1.5" discharge hose. Turtle tile matting shall be supplied and installed in the bin(s).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	One (1) checker plate cover(s) shall be provided for the hose bin(s). The checker plate cover(s) shall be hinged with a stainless-steel piano type hinge, come with spring gas strut and a stainless steel D ring handle.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lid shall come with a magnetic switch tied to the door ajar warning light in the chassis cab.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	<b>CONSOLE - PAINTED</b>		
	There shall be a console installed in the chassis cab with an angled design making it easier to access vital emergency controls. The top of the console shall be easily removable for maintenance and service. The console shall have a storage bin.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	One (1) divider shall be installed in the console bin.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be a hinged lid provided on top of the storage bin.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	<b>AUXILIARY SWITCH PANEL</b>		
	A switch panel or panels shall be located in the cab console.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Switches in the panel shall operate all auxiliary lighting, including but not limited to all scene, brow, and telescopic lighting, as depicted in this RFP. The panel shall be located so that the driver or front passenger may operate the switches.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All switches must be illuminated when in the on position.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The location of the switch panel or panels will be determined during the preconstruction meeting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
12	<b>MASTER WARNING SWITCH</b>		
	A master switch shall be included in the main rocker switch panel. The switch shall be a rocker type, red in color and labeled "Master" for identification. The switch shall feature control over all devices wired through it. Any warning device switch left in the "ON" position shall automatically power up when the master switch is activated.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	<b>POWER SWITCHING RELAY</b>		
	A power switching relay shall be provided and installed so that when the generator is activated, the power supplied from the 120-volt shoreline receptacle to the breaker box/power accessory shall be turned off and switched to generator power.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The power switching relay shall be rated for 15 amps.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	<b>CHASSIS WHEELS</b>		
	The chassis wheels shall be aluminum from the chassis supplier.		
15	<b>TIRES</b>		
	The chassis shall be equipped with Michelin tires.		
	The rear drive axle shall have Michelin XDN2 12R22.5 tires.		
	The steering axle shall have Michelin X tires.		
16	<b>CHASSIS PREPARATION</b>		
	The chassis shall be carefully inspected for compliance to the required specifications and to assure that it is ready for apparatus construction. Any components that require relocation or modification shall be done at this time.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
17	<b>CHASSIS EXHAUST MODIFICATIONS</b>		
	To maintain chassis engine performance, the chassis exhaust shall be modified minimally after any exhaust treatment devices and shall meet the chassis supplier's recommendations. The exhaust shall exit at the curbside of the apparatus before the rear axles and shall be a straight exhaust pipe design.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
18	<b>EXHAUST SYSTEM HEAT SHIELD</b>		
	Where the chassis exhaust piping passes under or near a body compartment, the exhaust piping shall be shielded utilizing a heat shield manufactured from 1/8" 3003-H22 aluminum checker plate to prevent compartment exposure to radiant heat.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The heat shield shall be mounted to the tail pipe with suitably sized muffler clamps.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
19	<b>FRONT AND REAR MUD FLAPS</b>		
	Four (4) heavy duty rubber rear mud flaps shall be provided and installed on the apparatus. The mud flaps shall be installed behind the front and rear wheels.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
20	<b>SCBA AIR BOTTLE BRACKET(S) - CHASSIS CAB</b>		
	Four (4) Zico Load and Lock Walk Away SCBA air bottle holder bracket(s) shall be provided and installed in the chassis cab seating area. (front passenger, three rear passenger compartment).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
21	<b>CHAINED IGNITION KEY</b>		
	The key utilized for the ignition shall be securely chained to either the steering column or the cab dash to prevent loss or removal of the ignition key.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
22	<b>ALUMINUM CHECKER PLATE COVERS</b>		
	There shall be .125" aluminum checker plate trim installed at the chassis steps. The checker plate shall be easily removable for ease of service and maintenance if required.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
23	<b>18AMP - BATTERY CHARGER / CHASSIS AIR BRAKE PROTECTION PACKAGE</b> (The following components shall be installed)		
	<u>Battery Charger - Kussmaul - Auto Charge 40/20 -_A</u> Kussmaul Auto Charge 40/20 Series Model #091-216 - 40/20, 60 amp high output battery charger shall be installed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Air Compressor - 12V - 100 PSI</u> - The compressor shall be a Kussmaul P/N 091-9-12V 12 volt compressor. The Auto Pump 12 volt driven air compressor shall ensure that the air brake system is properly pressurized for immediate response of the unit. A pressure switch shall regulate operation and shall automatically sense low air pressure in the brake system and restore the proper pressure. The unit shall have no interference with the vehicle mounted air compressor. The compact compressor shall have sealed bearings and a 15 amp circuit breaker installed in pressure switch assembly. The air compressor shall have the following ratings: 1) 100 PSI maximum rating 2) Pre-set at 75 PSI "ON" and 95 PSI "OFF" 3) Adjustable differential range of 20 PSI to 100 PSI 4) Output: 0.30 SCFM @ 80 PSI 0.35 SCFM @ 60 PSI 5) Rating: 12 volt at 11 amps	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Shoreline Inlet - Kussmaul Super Auto Eject - 20 Amp</u> A Kussmaul Super Auto Eject Model #091-55-20-120, 20 amp 120 volt shore power assembly, cover, solenoid input wire, power cord, and plug shall be installed. The 12 volt solenoid shall eject the shore power cord away from vehicle path upon sensing engine start; after ejection, the weatherproof cover snaps into position over inlet. The unit shall sequence energizing of an Auto Eject, eliminating terminal arcing when connecting and disconnecting power cord. The unit shall have a waterproof back enclosure with watertight cable fittings, which protect the mechanism from road contamination. A pre-wired 3 foot AC electrical cord and starting sense wire (side wired) shall be installed. The assembly shall have the following dimensions: 6.17" high x 4.08" wide x 2.8" deep with 4 lb. weight. Cover color to be yellow. Other colors available, please specify if otherwise: red, blue, white, gray, black	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Battery Charger Remote Digital Display</u> The charger shall include a Model #091-199-001 single bar remote digital display.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
25	<b>CAB STEP LIGHTING</b>		
	Each cab step shall be illuminated by Tecniq P/N E03 LED lights to meet the requirements of NFPA 1901.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be a one-inch-wide reflective stripe applied to the front of the apparatus. The reflective stripe shall be a 3M Scotchlite product.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be reflective striping applied to the interior chassis cab doors of the apparatus. The reflective stripe shall be a 3M Scotchlite product.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
26	<b>CAB HELMET HOLDERS</b>		
	Helmet holders (5) located in the cab shall be Ziamatic Universal Helmet Holders, model UHH-1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
27	<b>PUMP HOUSE</b>		
	The pump house shall be a full frame module constructed from 2" x 2" x .188" and 3" x 3" x .25" (6061-T6 / 6063-T6) heavy-duty structural aluminum extrusions which shall provide maximum strength and durability.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	The pump house shall be manufactured separately to allow for movement and flexibility.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The pump house shall be attached to the chassis frame with .25" thick heavy-duty mounting plates and .5" grade 8 cadmium plated bolts with self-locking nuts. A transition bracket with rubber mounts shall be installed to the chassis frame. The pump house shall then be mounted to the rubber mounts.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The front and rear of the pump house shall have 1/8" 3003 H14 checker plate trim.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
28	<b>PUMP INSPECTION DOOR</b>		
	The pump house interior shall be accessible by an inspection door on the right side. The inspection door shall be constructed from .125" aluminum checker plate. The door shall be fastened to the upper portion of the pump house with stainless steel piano hinges. The locking mechanisms for the door shall be a set of two (2) lift and turn twist lock latches.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
29	<b>HEAT PANS</b>		
	The bottom of the pump house shall be fitted with a heat pan. The heat pan shall enclose all sides, front, and rear and bottom of the pump house.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The heat pan vertical side walls shall be constructed from 1/8" 5083-H321 salt water grade sheet aluminum and shall be installed to the underside of the pump house.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be dual 12 gauge 5052 H321 aluminum panels that shall be split in the center and removable for access to the pump house components.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Any additional vertical enclosure to properly enclose the heat pan around chassis components shall be with 12 gauge 5052 H321 aluminum.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
30	<b>CONTROL PANEL - SIDE</b>		
	The pump operator's panel and the right side pump panel shall be constructed from 1/8" aluminum with a black anti-glare coating. Both the right side and left side pump panels shall be bolted to the pump house for ease of removal.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The pump operator's panel shall be manufactured in a two-tier design.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The bottom/lower tier (portion) shall be screwed into place and can be removable for servicing. The lower level contains all the valve controls, discharges, suction, drains, etc. All suction and discharge ports exiting through the panels shall be laser cut to provide a smooth exact fit. No cover overlay plates shall be used.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The top tier (portion) of the panel shall be bottom hinged with a stainless-steel piano hinge and shall have two (2) lift and turn twist lock latches located at the top of the panel for pump and gauge servicing. This panel shall contain all gauges and monitoring instruments.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All gauges and controls shall be symmetrically and logically laid out to easily enable the pump operator to monitor all aspects of pump operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All valve controls shall be made by use of heavy-duty steel rods, pivots, and Class I operators.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All discharge and auxiliary suction valves shall be mounted behind the panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
31	<b>PUMP INSPECTION DOOR</b>		
	The pump house interior shall be accessible by an inspection door on the right side. The inspection door shall be constructed from .125" aluminum high shine checker plate. The door shall be fastened to the upper portion of the pump house with stainless steel piano hinges. The locking mechanisms for the door shall be a set of two (2) lift and turn twist lock latches. A full height, vertically hinged, black coated inspection door may be supplied if there are minimal discharge and suction inlets on the panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	



No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
32	<b>MASTER GAUGE TEST PORTS</b>		
	The pump operator panel shall come with Class 1 P/N 121384 vacuum and pressure testing port.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
33	<b>PUMP BYPASS CONTROL</b>		
	A Class 1 P/N 105120 brass assembly with chrome plated zinc handle petcock control valve shall be mounted at the pump operator panel to allow tank water to recirculate thru the pump. The port size and plumbing shall be 1/4"	<input type="checkbox"/> Yes <input type="checkbox"/> No	
34	<b>AUXILIARY HEAT EXCHANGER</b>		
	There shall be an auxiliary heat exchanger mounted on the chassis. The heat exchanger will allow tank water to cool the chassis engine.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The heat exchanger shall be operated by a Class 1 P/N 105120 brass assemble with chrome plated zinc handle petcock control valve. This valve shall be mounted at the pump operator panel. The plumbing to the auxiliary heat exchanger control valve shall be 1/4".	<input type="checkbox"/> Yes <input type="checkbox"/> No	
35	<b>SPEED LAY HOSE BEDS</b>		
	A water tight compartment, manufactured from 1/8" 5083-H32 saltwater grade aluminum, located directly in front of the pump house enclosure shall be provided to encompass:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Two (2) speed lay hose beds installed transversely. Each speed lay hose compartment shall be able to carry a minimum of 200 feet of 1.75 inch fire hose.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The speed lay beds shall be slotted to allow for drainage of the hoses.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Two (2) removable trays shall be included in the speed lay hose beds. The trays shall be manufactured from 1/8" 5083-H32 saltwater grade aluminum. The trays shall have slots cut for handholds on each side of the trays. The trays shall be removable from either side of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Stainless steel rollers shall be provided for each side of the speed lay beds to aid in extraction / protection of the discharge hose.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Hinged aluminum checker plate doors with D-Ring latches shall be provided on each side of the speed lay compartments. The aluminum checker plate doors shall be a minimum of 1/8" thick. The doors shall come with a push pin door ajar switch tied to the chassis cab door ajar light.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	If the pump house is enclosed, an additional 14 gauge polished stainless steel rub plate shall be mounted on the interior of the pump house enclosure wall.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
36	<b>SPEED LAY PLUMBING - 1.5" DISCHARGE</b>		
	The plumbing on the 1.5" discharge(s) shall be heavy duty piping with Victaulic and Class 1 SBR synthetic rubber hose with stainless steel couplings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each discharge shall be equipped with a 90-degree swivel to allow them to be used from either side of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Style 8820 Swing - Out™ Valve</u> The valve shall be Akron Brass Style 8820 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Valve Actuator</u> The valves shall have chrome T handle actuators. For chemical and wear resistance a Lamacoid label specifying the discharge shall be inset into the T handle actuator. The label shall be color coded as per NFPA 1901 requirements.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	<p><u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color-coded trim ring shall be supplied.</p> <p>The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions).</p> <p>The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Drain Valves</u></p> <p>A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a 1/4 turn drain valve with high pressure brass fittings.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Spare Speed Lay Trays</u></p> <p>There shall be two (2) removable speed lay hose trays supplied for the speed lay hose beds. The hose trays shall be manufactured from 1/8" 5083-H321 saltwater grade aluminum.</p> <p>Each slide out tray shall have hand hold cut outs for removing the trays and slots for hose drainage.</p> <p>To assist in tray removal, there shall be 1/2" thick UHMW strips applied to the surface that the slide out trays are sitting on.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
37	<b>PUMP HOUSE RUBBER SEAL</b>		
	<p>There shall be a rubber foam cell permanently mounted between the pump house and the body for maximum pump house heat retention. The seal shall be mounted vertically down the height of the pump house, one each side.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
38	<b>RUB RAILS - PUMP HOUSE RUNNING BOARDS - NON SLIP</b>		
	<p>Three inch "C" channel aluminum rub rails shall be bolted into place with nylon spacers on the lower framework on the pump house running boards. The rub rail will extend to the outside edges of the running boards for protection from impact damage</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p>The top surface of the rub rail shall have a non-slip surface meeting the requirements of NFPA 1901 for non-slip walking surfaces.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
39	<b>PUMP HOUSE HEATERS</b>		
	<p>Two (2) DTAC 210-12 16,000 BTU forced air coolant heaters shall be installed.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p>The heaters shall be mounted low in the pump house so that the heat will be distributed evenly in the pump house and will keep the drain lines open. An on/off illuminated rocker switch shall be mounted on the pump panel for operation of the heaters.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
40	<b>PUMP PANEL LIGHTS - LED - SIDE PANEL</b>		
	<p>There shall be a total of four (4) 6.5" x 3" Tecniq E10 clear LED dome lights, (two (2) each side) to adequately illuminate the side pump panels. The lights shall be mounted under a protective hood of the same material as the side pump panels. The lights shall be activated by a switch at the pump operator panel.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
41	<b>PUMP HOUSE INTERIOR LIGHTING- LED</b>		
	<p>The interior of the pump house shall be illuminated by a total of two (2) 6.5" x 3" Tecniq E10 clear LED dome lights, one (1) each side. The lights shall be activated by a switch at the pump operator panel.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
42	<b>PRESSURE GOVERNOR, MONITORING, and MASTER PRESSURE DISPLAY</b>		
	<p>Fire Research InControl series TGA400-A00 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 5 1/2" high by 10 1/2" wide by 2" deep. 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</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	J1939 data bus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.		
	<p>The following continuous displays shall be provided:</p> <ul style="list-style-type: none"> <li>• Pump discharge; shown with four daylight bright LED digits more than 1/2" high</li> <li>• Pump Intake; shown with four daylight bright LED digits more than 1/2" high</li> <li>• Pressure / RPM setting; shown on a dot matrix message display</li> <li>• Pressure and RPM operating mode LEDs</li> <li>• Throttle ready LED</li> <li>• Engine RPM; shown with four daylight bright LED digits more than 1/2" high</li> <li>• Check engine and stop engine warning LEDs</li> <li>• Oil pressure; shown on a dual color (green/red) LED bar graph display</li> <li>• Engine coolant temperature; shown on a dual color (green/red) LED bar graph display</li> <li>• Transmission Temperature: shown on a dual color (green/red) LED bar graph display</li> <li>• Battery voltage; shown on a dual color (green/red) LED bar graph display.</li> </ul> <p>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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p>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:</p> <ul style="list-style-type: none"> <li>• High Battery Voltage</li> <li>• Low Battery Voltage (Engine Off)</li> <li>• Low Battery Voltage (Engine Running)</li> <li>• High Transmission Temperature</li> <li>• Low Engine Oil Pressure</li> <li>• High Engine Coolant Temperature</li> <li>• Out of Water (visual alarm only)</li> <li>• No Engine Response (visual alarm only).</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
43	<b>WATER TANK VOLUME INDICATOR</b>		
	Fire Research TankVision Pro model WLA300-A00 tank indicator kit shall be installed on the pump panel 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 RGB 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 Polycarbonate/Nylon material, and have a distinctive blue label.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	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 be placed on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
44	<b>PUMP</b>		
	The pump shall be rated at 5000 Liters per minute at 150 P.S.I.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p>The pump shall be the class "A" type and shall deliver the percentage of rated discharge at pressures indicated below.</p> <p>100% of rated capacities at 150 PSI net pump pressure.  100% of rated capacities at 165 PSI net pump pressure.  70% of rated capacities at 200 PSI net pump pressure.  50% of rated capacities at 250 PSI net pump pressure.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The pump when dry shall be capable of taking suction and discharging water with a lift of 10 feet in not more than 30 seconds through 20 feet of suction hose of the appropriate size. An additional 15 seconds shall be allowed when the system includes an auxiliary 4" or larger front or rear intake pipe.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Pump Assembly</u></p> <ol style="list-style-type: none"> <li>The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis, and have the capacity of 5000 litres per minute, NFPA-1901 rated performance.</li> <li>The entire pump shall be assembled and tested at the pump manufacturer's factory.</li> <li>The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.</li> <li>The entire pump 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 spots as outlined by the latest NFPA Pamphlet No. 1901. Pump shall be free from objectionable pulsation and vibration.</li> <li>The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (2069 bar). All metal moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.</li> <li>Pump body shall be vertically split, on a single plane for easy removal of entire impeller assembly including clearance rings.</li> <li>Pump shaft to be rigidly supported by two bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.</li> <li>The pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machines, hand-ground and individually balanced. The vanes of the impeller intake eye shall be hand ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.</li> <li>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 hand ground and polished to a sharp edge and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.</li> <li>Impeller clearance rings shall be bronze, easily renewable without replacing impeller or pump volute body.</li> <li>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.</li> </ol>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Gearbox</u></p> <ol style="list-style-type: none"> <li>Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of torque of the engine. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.</li> <li>The gearbox 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.</li> <li>All gears, both drive and pump, shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated and hardened, to give an extremely accurate gear for long life, smooth,</li> </ol>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	<p>quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. (No exceptions.)</p> <p>4. The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.</p> <p>5. If the gearbox is equipped with a power shift, the shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in road or pump.</p> <p>6. For automatic transmissions, three green warning lights shall be provided to indicate to the operator(s) 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 operators panel adjacent to the throttle control. For manual transmissions, one green warning light will be provided for the driving compartment. All lights to have appropriate identification/instruction plates.</p>		
45	<b>MASTER DRAIN VALVE</b>		
	A master drain valve shall be provided and plumbed at the lowest point of the plumbing. The drain valve and piping shall be a minimum of 19 mm (.75 inch) inside diameter.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
46	<b>PUMP OPERATION WARNING LABEL</b>		
	<p>There shall be a warning label mounted on the pump operator's panel that states the following:</p> <p><b>Warning: Death or serious injury might occur if proper operating procedures are not followed. The pump operator as well as individuals connecting supply or discharge hoses to the apparatus must be familiar with water hydraulics hazards and component limitations.</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
47	<b>PUMP SHAFT SEAL - MECHANICAL SEAL</b>		
	The pump shall have a mechanical shaft seal.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
48	<b>MID SHIP PUMP SHIFT ACTUATION WITH NFPA PUMP SHIFT INTERLOCK</b>		
	The mid ship pump engagement operations shall be controlled and monitored by a solid-state controller with IP67 rated dust and water protection. The electronic controller shall have the ability to communicate with the chassis J1939 communication port in order to meet the requirements of NFPA 1901 for pump shift interlock to prevent the pump from being shifted from pump mode to road mode unless the apparatus is in neutral. This will ensure the apparatus will not be accidentally put into road mode during operation, creating a runaway condition.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The electronic shift module shall create an internal delay to allow the driveshaft to stop in order to minimize a situation of gear grinding during pump actuation. Also, the module will prevent pump actuation while the chassis transmission is in drive gear.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The electronic module will activate a pump house mounted three (3) way air solenoid valve. The solenoid valve and electronic module shall be mounted in the pump house to allow for easy accessibility and weather protection. The electronic control module shall have built in diagnostic LED lights to allow for efficient maintenance.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Pump shift actuation shall be completed through a cab mounted control panel. The control panel shall be back lit illuminated and come with a locking switch that indicates either "ROAD" or "PUMP" mode. The control panel shall have two green indicator lights, One, shall indicate when the pump has been engaged and shall be labelled "PUMP ENGAGED". The second shall indicate when the pump transmission has fully engaged and shall be labelled "OK TO PUMP".	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All wiring shall be GXL grade wire, with wire function labelled every 6 inches onto wire. All connections shall have IP67 rated dust and waterproof protection.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
49	<b>PUMP PRIMER - TRIDENT AIR - 3 POSITION CONTROL</b>		
	The pump primer shall be a Trident Auto Air Primer P/N 31.001.22 and shall be pneumatically driven by the chassis air system. The main pump primer controller shall be located at the pump operator's panel. An 85 P.S.I.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	pressure protection valve shall be installed in the chassis air system leading to the primer system.		
	In addition to the main pump primer controller located on the pump operator panel there shall be a remote primer control located at the pump main intake locations for remote priming of the suction hose. Each main suction inlet must have a main intake valve in order for this option to operate.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
50	<b>PRIMING SYSTEM LABEL</b>		
	The priming system shall be marked with a label to indicate proper operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
51	<b>6" MAIN SUCTION MANIFOLD - STAINLESS STEEL</b>		
	There shall be a total of two (2) 6" main inlets, one each side of the pump house.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The plumbing for the two (2) main suction inlets shall be single piece design manufactured from schedule 10 stainless steel with schedule 40 threaded fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The suction manifold shall be bolted to the pump utilizing heavy duty grade 8 bolts for firm vibration free installation. A victaulic coupler is not acceptable. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
52	<b>MAIN SUCTION INLET CHROME CAPS</b>		
	Each inlet shall come with a chrome plated long handled cap.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
53	<b>ELECTRIC BUTTERFLY MAIN SUCTION INTAKE VALVE - Left Side</b>		
	The inlet valve shall be a full flow butterfly type valve designed to mount on the fire pump between the suction tube extension and suction tube behind the pump compartment panel. The valve shall not interfere with other suction or discharge openings on the fire pump or with pump operating controls when properly mounted.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The entire valve shall be manufactured and tested at the pump manufacturer's factory.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	When the valve is installed in the fire pump suction the fire pump shall be capable of achieving an NFPA / UL test rating of 1500 GPM through a single 6-inch NST suction hose. When two valves are installed on the fire pump, the pump shall be capable of achieving an NFPA/UL test rating of 2000 GPM using dual 6-inch NST suction hoses.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve body and related components that are in contact with water shall be manufactured of fine grained corrosion resistant bronze.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The butterfly disc shall be manufactured from 80,000 PSI minimum yield strength heat treated cast steel then coated with a durable nitrile rubber to provide a positive seal when the valve is closed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Testing and rating of the valve shall be accomplished at the valve manufacturers factory. The valve, less relief valve, shall be hydrostatically tested to 600 PSIG. The valve shall then be vacuum tested to 26 inches Hg.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A pressure relief valve shall be provided that is factory set to 125 PSI and field adjustable from 75 to 250 PSI. The pressure relief valve shall provide overpressure protection for the suction hose even when the intake valve is closed. An integral relief valve mounting pad shall be provided on the valve body. This mounting pad shall provide an equivalent of a Hale type 115 4 3/8 inch bolt circle flange for normal installation. The mounting pad shall have 2-½ inch female NPT threads to permit remote mounting of the relief valve without special adapters. The outlet of the pressure relief valve shall have 2-½ inch NPT threads to allow directing the discharge flow away from the pump operator position.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The inlet valve(s) shall be operated by a 12 VDC electric motor with remote capabilities or by a manual hand wheel located next to the suction tube.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each valve shall be provided with panel placards indicating control operation. The placards shall have status lights to indicate whether the valve is open, closed or traversing from one position to another.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	Each valve shall be provided with a gear actuator that will cycle the valve from OPEN to CLOSED position in no less than 3 seconds. The gear actuators shall be sealed units designed to provide reliable service in the harsh pump compartment environment. The ratio of the gear actuator shall be such that the hand wheel will close the valve in no more than 10 complete turns.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The 12 VDC motor on the electric operated valve shall be provided with an automatic resetting, thermally compensated, over current protection circuit breaker to protect the 12 VDC motor and apparatus electrical system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The electrical wiring for the valve shall be minimum 14 AWG, type SXL or GXL (SAE J1128) and shall be protected using 257 F minimum flame retardant, moisture resistant loom or braid. All electrical connections shall use sealed Packard Weather Pack connectors to provide extra protection from the harsh pump compartment environment to ensure long life and reliable operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve body shall have a 3/4 inch female NPT threaded port on the top to allow installation of an NFPA compliant large diameter hose air bleeder valve. The air bleeder valve shall be mounted on the operator panel and be controllable by the pump operator. Air bleeder valve connections shall have a restriction no larger than 3/4 inch to prevent water hammer when filling hose.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve body shall have a 1/4 inch female NPT threaded port on the bottom to permit connection of an individual water drain valve.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A suction tube extension 7-1/4 inches wide shall be used to allow for the additional length of the inlet valve. The shorter suction tube extension, along with a 4, 6 or 9 inch suction tube, will keep the suction tube threads within the apparatus running boards while maintaining clearance for adapters.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A panel mounted manual override shall be provided to permit operation of the electric remote control valve in the event of abnormal operating conditions. The manual override shall be designed to permit operation of the valve without the use of special tools or disassembly of the pump compartment panel or valve.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve shall be equipped with O-ring seals for the mounting flanges. The O-ring seal groove shall be sized for proper squeeze of the O-ring for pressures in excess of 600 PSIG.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
54	<b>ELECTRIC BUTTERFLY MAIN SUCTION INTAKE VALVE - Right Side</b>		
	The inlet valve shall be a full flow butterfly type valve designed to mount on the fire pump between the suction tube extension and suction tube behind the pump compartment panel. The valve shall not interfere with other suction or discharge openings on the fire pump or with pump operating controls when properly mounted.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The entire valve shall be manufactured and tested at the pump manufacturer's factory.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	When the valve is installed in the fire pump suction the fire pump shall be capable of achieving an NFPA / UL test rating of 1500 GPM through a single 6-inch NST suction hose. When two valves are installed on the fire pump, the pump shall be capable of achieving an NFPA/UL test rating of 2000 GPM using dual 6-inch NST suction hoses.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve body and related components that are in contact with water shall be manufactured of fine-grained corrosion resistant bronze.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The butterfly disc shall be manufactured from 80,000 PSI minimum yield strength heat treated cast steel then coated with a durable nitrile rubber to provide a positive seal when the valve is closed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Testing and rating of the valve shall be accomplished at the valve manufacturers factory. The valve, less relief valve, shall be hydrostatically tested to 600 PSIG. The valve shall then be vacuum tested to 26 inches Hg.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A pressure relief valve shall be provided that is factory set to 125 PSI and field adjustable from 75 to 250 PSI. The pressure relief valve shall provide overpressure protection for the suction hose even when the intake valve is closed. An integral relief valve mounting pad shall be provided on the valve body. This mounting pad shall provide a Hale type 115 4-3/8 inch bolt circle	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	flange for normal installation. The mounting pad shall have 2-½ inch female NPT threads to permit remote mounting of the relief valve without special adapters. The outlet of the pressure relief valve shall have 2-½ inch NPT threads to allow directing the discharge flow away from the pump operator position.		
	The inlet valve(s) shall be operated by a 12 VDC electric motor with remote capabilities or by a manual hand wheel located next to the suction tube.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each valve shall be provided with panel placards indicating control operation. The placards shall have status lights to indicate whether the valve is open, closed or traversing from one position to another.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each valve shall be provided with a gear actuator that will cycle the valve from OPEN to CLOSED position in no less than 3 seconds. The gear actuators shall be sealed units designed to provide reliable service in the harsh pump compartment environment. The ratio of the gear actuator shall be such that the hand wheel will close the valve in no more than 10 complete turns.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The 12 VDC motor on the electric operated valve shall be provided with an automatic resetting, thermally compensated, over current protection circuit breaker to protect the 12 VDC motor and apparatus electrical system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The electrical wiring for the valve shall be minimum 14 AWG, type SXL or GXL (SAE J1128) and shall be protected using 257 F minimum flame retardant, moisture resistant loom or braid. All electrical connections shall use sealed Packard Weather Pack connectors to provide extra protection from the harsh pump compartment environment to ensure long life and reliable operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve body shall have a ¾ inch female NPT threaded port on the top to allow installation of an NFPA compliant large diameter hose air bleeder valve. The air bleeder valve shall be mounted on the operator panel and be controllable by the pump operator. Air bleeder valve connections shall have a restriction no larger than ¾ inch to prevent water hammer when filling hose.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve body shall have a ¼ inch female NPT threaded port on the bottom to permit connection of an individual water drain valve.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A suction tube extension 7-¼ inches wide shall be used to allow for the additional length of the inlet valve. The shorter suction tube extension, along with a 4, 6 or 9 inch suction tube, will keep the suction tube threads within the apparatus running boards while maintaining clearance for adapters.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A panel mounted manual override shall be provided to permit operation of the electric remote control valve in the event of abnormal operating conditions. The manual override shall be designed to permit operation of the valve without the use of special tools or disassembly of the pump compartment panel or valve.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The valve shall be equipped with O-ring seals for the mounting flanges. The O-ring seal groove shall be sized for proper squeeze of the O-ring for pressures in excess of 600 PSIG.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
55	<b>AUXILIARY SUCTION - ROAD SIDE</b>		
	One (1) 2-1/2" gated inlet(s) shall be provided at the left side pump panel. The inlet(s) shall come complete with a chrome female swivel threaded adaptor. There shall be a chrome cap with the inlet(s) and the cap shall come with a chain that is attached to the pump operator panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The plumbing shall be schedule 10 stainless steel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A rubber grommet shall enclose the plumbing coming out of the pump panel for maximum heat retention in the pump house. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Style 8825 Swing - Out™ Valve</u> The valves shall be Akron Brass Style 8825 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless steel parts must be 316 grade for increased resistance to	<input type="checkbox"/> Yes <input type="checkbox"/> No	



No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.		
	<u>Valve Actuator</u> The valve control shall be by a chrome swing handle located near the discharge.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
56	<b>SUCTION RELIEF VALVE</b>		
	A 2-1/2" Elkhart model 40-20 flange mounted adjustable suction relief valve shall be provided and installed in the suction side of the pump. The discharge side of the valve shall be plumbed to the area below the running board, away from the pump operator. The relief valve shall have an adjustable working range of 75 PSIG to 250 PSIG and be pre-set at 125 PSI.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
57	<b>TANK FILL LINE - PUMP TO TANK</b>		
	There shall be a 2" discharge provided at the pump operator panel for a pump to tank line.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Style 8820 Swing - Out™ Valve</u> The valve shall be Akron Brass Style 8820 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Valve Actuator</u> The valves shall have chrome T handle actuators. For chemical and wear resistance a Lamacoid label specifying the discharge shall be inset into the T handle actuator. The label shall be color coded as per NFPA 1901 requirements.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
58	<b>DISCHARGE MANIFOLD - STAINLESS STEEL</b>		
	All plumbing for the discharge manifold and discharge plumbing shall be schedule 10 stainless steel with schedule 40 threaded fittings. In some cases, heavy duty, high pressure, wire reinforced flexible hose with stainless steel couplings shall be utilized for plumbing connections.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Victaulic couplings shall be used on the plumbing lines to take tension off piping and to permit flexing and movement without damage to the pump and its components.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Heavy duty U-bolt clamps and bracing shall be used on all plumbing lines and connections where required for firm vibration free installation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
59	<b>TANK SUPPLY LINE</b>		
	A 4" tank supply line shall be installed from the tank to the pump. A 3" check valve shall be installed in the pump to eliminate the possibility of pressure expanding and damaging the tank.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Electric Valve - Style 8630 Swing-Out™</u> The electric valve(s) shall be an Akron Brass Style 8630 Swing-Out™ Valve. The valve(s) shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. All stainless steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The electric actuator shall have a 16:1 gear ratio, which actuates from fully open to fully closed in 5 seconds, a clutch less motor, and utilize an electric controller	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	with current limiting design. Product must carry a 10 year manufacturer's warranty.		
60	<b>AKRON 9327 ELECTRIC VALVE CONTROLLER</b>		
	An Akron Brass Style 9327 Navigator Pro Mini Valve Controller shall be provided. The electric controls must be of true position feedback design, requiring no clutches in the motor or current limiting. The unit must be completely sealed with momentary open and close buttons. One additional button shall be available to be used for preset activation. The unit must be capable of being used in conjunction with at least two additional displays to control one valve. The unit must provide position indication through a series of 5 ultra-bright LEDs. It shall have manual adjustment of the brightness in the menus. The unit must carry a five year warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
61	<b>2.5" DISCHARGE - LEFT SIDE</b>		
	Two (2) 2.5" gated discharge(s) shall be provided at the left side pump panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	This discharge(s) shall be equipped with a chrome 30-degree adapter, chrome plated rocker lug cap, and retaining chain that is attached to the pump panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A rubber grommet shall enclose the plumbing coming out of the pump panel for maximum heat retention in the pump house. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Style 8825 Swing - Out™ Valve</u> The valves shall be Akron Brass Style 8825 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Valve Actuator</u> The valve control shall be by a chrome swing handle located near the discharge.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied. The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions). The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
62	<b>2.5" DISCHARGE - CURBSIDE</b>		
	One (1) 2.5" gated discharge(s) shall be provided at the curbside pump panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	This discharge(s) shall be equipped with a chrome 30-degree adapter, chrome plated rocker lug cap, and retaining chain that is attached to the pump panel.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A rubber grommet shall enclose the plumbing coming out of the pump panel for maximum heat retention in the pump house. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	<p><u>Akron Style 8825 Swing - Out™ Valve</u> The valves shall be Akron Brass Style 8825 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Valve Actuator</u> The valves shall have chrome T handle actuators. For chemical and wear resistance a Lamacoid label specifying the discharge shall be inset into the T handle actuator. The label shall be color coded as per NFPA 1901 requirements.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied. The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions). The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
63	<b>3" DELUGE GUN DISCHARGE (12V)</b>		
	<p>A 3" deluge gun discharge shall be provided and installed above the pump house to accommodate a Township supplied Akron Style 3421 Apollo Dual-Inlet Portable Monitor and 2.5-inch NH dual inlet ground base monitor.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p>The plumbing leading to the monitor standpipe shall be schedule 40 stainless steel with schedule 40 threaded fittings, a 3 inch waterway with a combination 3 inch NPT female and a 3 inch flange.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p>The finished standpipe height shall allow for the mounting and un-mounting of the deck gun without remove of any panels or other devices or body parts, and shall have sufficient height to allow for the monitor to have a 360° rotation when mounted in the deck mode and vertical travel from 90° above to 15° below horizontal, with built-in 35° safety stop.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<p><u>Akron Electric Valve - Style 8630 Swing-Out™</u> The electric valve(s) shall be an Akron Brass Style 8630 Swing-Out™ Valve. The valve(s) shall have an all-brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The electric actuator shall have a 16:1 gear ratio, which actuates from fully open to fully closed in 5 seconds, a clutch less motor, and utilize an electric controller with current limiting design. Product must carry a 10 year manufacturer's warranty.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
64	<b>AKRON 9327 ELECTRIC VALVE CONTROLLER</b>		
	<p>An Akron Brass Style 9327 Navigator Pro Mini Valve Controller shall be provided. The electric controls must be of true position feedback design, requiring no clutches in the motor or current limiting. The unit must be completely sealed with momentary open and close buttons. One additional button shall be available to be used for preset activation. The unit must be</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	capable of being used in conjunction with at least two additional displays to control one valve. The unit must provide position indication through a series of 5 ultra-bright LEDs. It shall have manual adjustment of the brightness in the menus. The unit must carry a five year warranty.		
	<u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied. The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions). The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
65	<b>THREAD TYPE - DISCHARGE 2.5"</b>		
	The threads that shall be provided for the 2.5" Discharges and 2.5" Suction Inlets shall be CSA.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
66	<b>1.5" FRONT BUMPER DISCHARGE</b>		
	There shall be One (1) 1.5" discharge(s) provided to the front bumper area. The plumbing shall be 2" schedule 10 stainless steel with schedule 40 stainless steel fittings and Class 1 high pressure hose with stainless steel couplings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The discharge shall be a brass 2" NPTFS x 1.5"NPSH male 90 degree swivel located in the front bumper hose bin.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Style 8820 Swing - Out™ Valve</u> The valve shall be Akron Brass Style 8820 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Valve Actuator</u> The valves shall have chrome T handle actuators. For chemical and wear resistance a Lamacoid label specifying the discharge shall be inset into the T handle actuator. The label shall be color coded as per NFPA 1901 requirements.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied. The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions). The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	<u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
67	<b>2.5" DISCHARGE - REAR</b>		
	One (1) 2.5" gated discharge(s) shall be provided at the rear of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The plumbing leading to the rear discharge shall be high pressure Class 1 hose and schedule 10 stainless steel with schedule 40 threaded fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	This discharge(s) shall be equipped with a chrome 30 degree adapter, chrome plated rocker lug cap, and retaining chain that is attached to the apparatus body.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Style 8825 Swing - Out™ Valve</u> The valves shall be Akron Brass Style 8825 Swing-Out™ Valves. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. All stainless-steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. Product must carry a 10 year manufacturer's warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Valve Actuator</u> The valves shall have chrome T handle actuators. For chemical and wear resistance a Lamacoid label specifying the discharge shall be inset into the T handle actuator. The label shall be color coded as per NFPA 1901 requirements.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied. The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions). The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
68	<b>STORZ DISCHARGE WITH SLO CLOZ- SIDE</b>		
	One (1) gated Storz discharge(s) shall be provided at the curbside pump panel. The plumbing shall be 3" diameter stainless steel plumbing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The inlet(s) shall be equipped with a 4" Storz 30 degree adapter, Storz cap, and retaining chain that is attached to the apparatus body.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Akron Electric Valve - Style 8630 Swing-Out™</u> The electric valve(s) shall be an Akron Brass Style 8630 Swing-Out™ Valve. The valve(s) shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. All stainless steel parts must be 316 grade for increased resistance to corrosion. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The electric actuator shall have a 16:1 gear ratio, which actuates from fully open to fully closed in 5 seconds, a clutch less	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	motor, and utilize an electric controller with current limiting design. Product must carry a 10 year manufacturer's warranty.		
69	<b>AKRON 9327 ELECTRIC VALVE CONTROLLER</b>		
	An Akron Brass Style 9327 Navigator Pro Mini Valve Controller shall be provided. The electric controls must be of true position feedback design, requiring no clutches in the motor or current limiting. The unit must be completely sealed with momentary open and close buttons. One additional button shall be available to be used for preset activation. The unit must be capable of being used in conjunction with at least two additional displays to control one valve. The unit must provide position indication through a series of 5 ultra-bright LEDs. It shall have manual adjustment of the brightness in the menus. The unit must carry a five year warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Discharge Gauge - Dual Scale</u> A 2.5" discharge gauges shall be mounted adjacent to the discharge valve control handle. A removable bright metal or color coded trim ring shall be supplied. The gauge shall be fully filled with pulse and vibration dampening Interlube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation. To 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 (no exceptions). The gauges shall be in dual scale and measure in increments of 0-400 psi and 0-2800 kPa.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Drain Valves</u> A drain shall be installed at the pump panel. The drain shall have 3/4" Synflex drain lines tied to a lift style drain valve with high pressure brass fittings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
70	<b>FOAM PRO 2001 FOAM SYSTEM</b>		
	The vehicle shall be equipped with an electronic, fully automatic, variable speed direct injection, discharge side foam proportioning system. The system shall be capable of handling foam concentrate. The foam system shall be a FoamPro 2001.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows, and pressures. The system must be capable of delivering accuracy to within 3% of calibrated settings over the advertised operation range when installed according to factory standards.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The system shall be equipped with a control module suitable for installation on the pump panel. Incorporated within the motor driver shall be a microprocessor that receives input from the system flow meter, while also monitoring foam concentrate pump output, comparing values to ensure that the operator preset proportional amount of foam concentrate is injected into the discharge side of the fire pump.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A paddlewheel type flow meter shall be installed in the discharges specified to be foam capable. As this system uses more than one flow meter an interface electronics module will be provided to totalize these flows and send the flow total to the microprocessor in the computer control display.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The digital computer control display shall enable the pump operator to perform the following control and operation functions for the foam proportioning system: 1) Provide push-button control of foam proportioning rates from .1% to 9.9% in .1% increments. 2) Show the current flow per minute of water. 3) Show the total volume of water discharged during and after foam operations are completed. 4) Show the total amount of foam concentrate consumed. 5) Show the flow rates for manual operation. 6) Perform setup and diagnostic functions for the computer controlled microprocessor. 7) Flash a "low concentrate" warning when the foam concentrate tank(s) run low. 8) Flash a "no concentrate" warning and shut the foam concentrate pump off, preventing damage to the pump should the foam tank(s) empty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	A 12 volt electric motor driven positive displacement foam concentrate pump shall be provided. The pump capacity shall be 2.5 gpm at 400 psi. A pump motor electronic driver shall receive signals from the computer control display and power the 1/2 hp electric motor directly coupled to the concentrate pump in a variable speed duty cycle to ensure that the correct proportion of concentrate preset by the pump operator is injected into the water stream.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A full flow check valve shall be provided to prevent foam contamination of the fire pump and water tank or water contamination of the foam tank(s).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The 2000 series components shall include: 1) An operator control and display 2) Paddlewheel flow meters 3) Foam pump and electric motor/motor driver 4) All required wiring harness 5) Low level tank switch(s) 6) Multi-Flo electronic module 7) An electronic dual tank valve or manual dual tank valve 8) A foam injection check valve.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	An operations manual shall be provided for the unit.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
71	<b>FOAM SYSTEM DISCHARGE MANIFOLD</b>		
	A stainless-steel foam discharge manifold shall be provided for the foam system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	This foam manifold shall have four (4) outlets for connection into the apparatus plumbing system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
72	<b>INTEGRAL FOAM TANK</b>		
	The integral foam tank shall have a capacity of at least <b>114 liters (25 Imperial gallons)</b> .	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The foam tank shall be provided as an integral part of the booster tank and piped to the foam system. The tank shall have a separate fill tower with cover labeled ("FOAM FILL ONLY") for filling the foam tank.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
73	<b>CLASS A FOAM TANK VOLUME INDICATOR</b>		
	Fire Research TankVision Pro model WLA360-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, a 10' sensor cable and a tank vent. The indicator shall show the volume of Class A foam concentrate in the tank on nine (9) easy to see super bright RGB 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 Polycarbonate/Nylon material, and have a distinctive green label.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the foam tank near the bottom. No probe shall be placed on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
74	<b>INTEGRAL FOAM TANK WATER ALLOWANCE</b>		
	The integral foam cell will deduct water from the specified water tank volume.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
75	<b>BOOSTER TANK</b>		
	The booster tank shall have a capacity of at least <b>3637 liters (800 Imperial gallons).</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank shall be provided with a lifetime tank manufacturer warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The transverse and longitudinal swash partitions shall be manufactured of Polypropylene Copolymer material. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow and meet NFPA rules. All swash partitions interlock with one another and are welded to each other as well as to the walls and floor of the tank.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank shall have a combination vent and fill tower. The fill tower shall be constructed of .5" thick Polypropylene Copolymer and shall be a minimum dimension of 8"x 8" outer perimeter. The tower shall be located in the left front corner of the tank unless otherwise specified by the Township. The tower shall have a .25" thick removable Polypropylene Copolymer screen and a Polypropylene Copolymer 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 I.D of 4", unless a dump chute is included in the design in which case the I.D shall be 6". Both shall be of a design to run through the tank. The tank overflow shall be piped behind the rear wheels.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank cover shall be constructed of recessed .5" thick Polypropylene Copolymer, stress relieved, U.V. stabilized material. A minimum of two lifting dowels shall be drilled and tapped .5" x 2" to accommodate the lifting eyes.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be one (1) sump standard per tank. The sump shall be constructed of .5" Polypropylene Copolymer and be located in the left front corner of the tank and shall meet the requirements of NFPA.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There will be two (2) standard tank outlets: one for tank to sump suction line and one for a tank fill line. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and be capable of withstanding sustained fill rates of up to 1,000 G.P.M.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank shall rest on the body cross members in conjunction with such additional cross members, spaced at a distance that would not allow for more than 530 square inches of unsupported area under the tank floor. In cases where overall height of the tank exceeds 40 inches, cross member spacing must be decreased to allow for not more than 400 square inches of unsupported area.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank must be isolated from the cross members through the use of hard rubber strips with a minimum thickness and width dimension of .25" x 2" and a minimum Rockwell hardness of 60 durometers. Additionally, the tank must be supported around the entire bottom outside perimeter and capture both front and rear as well as side to side to prevent tank from shifting during vehicle operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank shall be mounted in the apparatus body in a manner that the total outside bottom perimeter of the tank shall be supported. The bottom of the tank shall be completely isolated from the frame by heavy-duty .25" thick rubber strips. There shall be a picture frame type cradle mount system utilized for the purpose of capturing the tank. There shall be a support system across the top of the tank to prevent excessive bouncing when the tank is empty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Although the tank is designed as a free-floating suspension unit, it is required that the tank has adequate hold down restraints to minimize movement during vehicle operation. If proper retention has not been incorporated into the apparatus hose floor structure, an optional mounting restraint system shall be located on the top of the tank, halfway between the front and rear on each side of the tank.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tank shall be completely removable without disturbing or dismantling the apparatus structure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	



No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
76	<b>LIMITED LIFETIME POLY TANK WARRANTY</b>		
	The water tank shall carry a tank manufacturer lifetime warranty against defects and workmanship. The apparatus manufacturer must be authorized for installation and alterations on poly tanks to not void any written warranties. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
77	<b>TANK DRAIN</b>		
	The tank shall have a 1.5" tank drain installed in the bottom of the tank and accessible from the ground.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
78	<b>COMPARTMENT PARTITIONS</b>		
	A compartment partition shall be provided. Each compartment partition shall be manufactured from 3/16" aluminum and bolted into place in the body compartment.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
79	<b>COMPARTMENT SHELVING - FIXED</b>		
	Two (2) permanently installed 3/16" aluminum compartment shelves with upturned edges shall be provided. Each shelf shall be provided with plastic matting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
80	<b>ROLL OUT TRAY(S)</b>		
	Four (4) heavy duty ball bearing roll out tray shall be provided.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tray(s) shall have two (2) side mounted, 500 lb. rated ball bearing roll out 18" travel sliding tracks and a 3/16" aluminum tray with up turned edges. The tray shall be supplied with plastic floor matting and corner drain holes.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tray(s) shall have a drop bar tray retainer to keep the tray secure in either the open or closed position.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
81	<b>ROLL OUT TRAY(S) - ADJUSTABLE HEIGHT</b>		
	One (1) heavy duty ball bearing roll out tray shall be provided. The trays shall be mounted in a compartment and be adjustable in height.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tray(s) shall have two (2) side mounted, 500 lb. rated ball bearing roll out 18" travel sliding tracks and a 3/16" aluminum tray with up turned edges. The tray shall be supplied with plastic floor matting and corner drain holes.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tray(s) shall have a drop bar tray retainer to keep the tray secure in either the open or closed position.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
82	<b>SLIDEMASTER TIP-DOWN TRAY(S)</b>		
	One (1) heavy duty ball bearing SlideMaster tip-down tray shall be provided.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tray(s) shall have two (2) side mounted, 250 lb. rated ball bearing roll out sliding tracks and a 3/16" aluminum tray with up turned edges. The tray shall be supplied with plastic floor matting and corner drain holes.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tray(s) shall have a drop bar retainer to keep the tray secure in either the open or closed position.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All trays shall come with rubber matting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
83	<b>VERTICAL TOOLBOARD(S) ON SLIDE OUT TRAY</b>		
	Two (2) vertical tool boards(s) shall be installed on the specified slide out trays.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The vertical tool boards shall be manufactured from perforated 3/16" 5052-H32 aluminum.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
84	<b>SCBA AIR BOTTLE STORAGE COMPARTMENT(S)</b>		
	There shall be four (4) air bottle storage compartment(s) installed in the rear fenders.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The air bottle storage compartment(s) shall have a sealed weatherproof stainless steel access door with a positive door latch.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	The storage tube shall be manufactured from PVC.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
85	<b>APPARATUS BODY</b>		
	The body shall be fabricated with the highest quality components available, and acceptable to the fire service industry. Only new components shall be in the manufacturing process.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The body shall be engineered and designed to provide a low center of gravity and carry a correct load distribution.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The entire body superstructure and sub frame shall be constructed of heavy-duty tubular aluminum and channels to provide a full frame body design.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The use of tubular aluminum and channels shall provide for extreme strength, maximum durability, and maximum resistance to buckling and failure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The full frame body construction method shall provide for greater strength and integrity. Formed body construction shall not be acceptable.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All compartments shall be fabricated with 1/8" aluminum panels, salt-water marine grade 5083-H321, which are inserted into the body framework. The framework allows for reinforcement to the compartment, for installation of heavy equipment. The 1/8" aluminum panels, salt-water marine grade 5083-H321 panels shall provide extreme strength, rust corrosion resistance, and maximum durability.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Skilled craftsmen shall perform all welding operations on the body. All welding shall be electronically with the highest quality components.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Certified welders shall perform all welding. Proof of welder certification shall be provided with the completed vehicle.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
86	<b>BODY SUBFRAME</b>		
	The body framework shall be assembled on a jig, and shall be clamped together and squared. The framework shall be electronically welded with digital pulse welders forming the integral superstructure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The body frame rails shall be constructed of 6061T6/6063-T6, 3" x 3" aluminum extrusions, with a wall thickness of 1/4".	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The front cross member shall be a heavy duty 3" x 2" x 1/4" aluminum extrusions providing maximum strength and durability.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The two middle cross members shall be heavy duty 3" x 3" x 1/4" aluminum extrusions providing maximum strength and durability at the main section of the body.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The rear cross members shall be heavy duty 3" x 2" x 1/4" aluminum extrusions providing maximum strength and durability at the rear section of the body.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The two middle cross members shall extend the full width of the body. The cross members shall provide support for the body side compartments section.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The body sub frame and the chassis frame shall be insulated and separated by a rubberized belt.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be rear drop sub frame bolted to chassis frame made from formed heavy steel rails.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The body shall be mounted to the chassis frame rails with two double flex mounts at the front, two steel channels in the middle, bolted to the chassis frame at the rear end of chassis frame and four single flex mounts at the drop frame. This shall provide for maximum mounting strength and flexibility.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
87	<b>CORROSION PROTECTION</b>		
	All body components or attachments made from dissimilar metals shall be fastened to the body utilizing an UHMW/Polyethylene material to prevent metal-to-metal contact preventing dielectric corrosion.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	All fasteners used in attaching or fastening of aluminum panels shall be installed with stainless steel hardware. Rivets shall not be acceptable. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All fasteners shall be installed in a manner, which shall involve drilling, tapping, and application of non-corrosive grease before the stainless steel bolts are installed. Self-tapping screws or screws without threads shall not be acceptable. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
88	<b>SUB STRUCTURE WARRANTY - 20 YEAR</b>		
	The substructure shall be warranted for a period of twenty (20) years on the apparatus sub structure for corrosion perforation. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
89	<b>BODY WARRANTY - 20 YEAR</b>		
	The apparatus body warranty shall cover the entire body against manufacturer defects for a period of twenty 20 years on aluminum and stainless steel full framed bodies. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
90	<b>HOSE BED</b>		
	The main hose bed shall be located above the booster tank and be sized to meet the requirements for a Pumper Fire Apparatus as specified in NFPA 1901 (Latest Edition) and ULC S515-13.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The inner sides of the hose bed shall be natural finish aluminum smooth plate free of protrusions and obstructions.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be three (3) Aluminum Unistrut tracks for the optional hose bed divider(s), two (2) at the forward section of the hose bed, and one (1) at the rear.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The rear track shall have come with 10' of snap cover to prevent the hose couplings from catching the track. The snap cover shall be shipped loose for customer installation after the hose bed dividers have been set up.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
91	<b>HOSE BED MATTING</b>		
	The hose bed flooring shall be fitted with vinyl type matting to allow for air movement under the hose.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
92	<b>HOSE BED DIVIDER - ADJUSTABLE</b>		
	There shall be Two (2) adjustable hose bed divider(s) provided.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The divider(s) shall be easily adjustable in the hose bed slide tracks.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each divider shall be constructed from 3/16" 5083-H321 salt water marine grade aluminum which shall be welded into a custom aluminum extrusion base frame.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each hose bed divider shall have an oval handhold provided at the rear portion of the divider.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
93	<b>ALUMINUM CHECKER PLATE HOSE BED COVER</b>		
	One (1) polished aluminum checker plate hose bed cover shall be provided and installed over the main hose bed area. This cover shall be manufactured in two (2) sections, each one hinged at hose body side sheet and closing to center of hose bed. Each cover shall have a gas strut door stay to hold it in the open position. A fixed center hose bed partition shall be provided and shall be slightly higher than the hose bed side walls. The hose bed cover shall slant downward to each side of the body for drainage. The aluminum hose bed cover shall have a vinyl end flap to cover the rear of the hose bed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A total of four (4) 12" H20 Lumabar LED lights shall be mounted under the hose bed divider lids for illumination when the cover is in the open position.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
94	<b>HOSE BED ACCESS STEP</b>		
	A hose bed access step shall be installed below the hose bed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The step shall be manufactured from 3/16" 3003-H22 embossed checker plate aluminum and shall meet the requirements of NFPA 1901 latest edition for slip resistance, depth, and weight load.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

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	The step dimensions shall be approximately 51" wide on the front and approximately 58" on the rear. These dimensions may be adjusted due to optional equipment clearance and the final sign off drawing will have the actual dimensions.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The step shall be fastened to the apparatus rear face utilizing stainless steel screws.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Weld and Fabrication - ER Body	<input type="checkbox"/> Yes <input type="checkbox"/> No	
95	<b>REAR FENDERS</b>		
	The rear fenders of the apparatus shall be fully removable to allow for servicing of the apparatus suspension system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The rear fender outer skin shall be fabricated from 3/16" 5052-H32 aluminum. The aluminum shall be painted to the same color and paint process as the body.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The inner wheel well shall be fabricated from 1/8" 5083-H321 salt water grade aluminum.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The fender shall be attached to the body using stainless steel screws. The screws shall be pre tapped before installation. Self-tapping screws are not acceptable.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All dissimilar metals shall receive a strip of UHMW isolation tape for corrosion resistance.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
96	<b>REAR BODY SECTION - NATURAL FINISH ALUMINUM</b>		
	The rear section of the apparatus body shall be finished with 1/8" 5083 H321 aluminum plate panels. The panels shall have a natural finish for installation of Chevron. The panels shall be fastened to the rear body framework with stainless steel fasteners. The stainless steel fasteners are drill tapped. Sheet metal screws or self-tapping screws are not acceptable. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
97	<b>HOSE BED ACCESS LADDER - STAINLESS STEEL - REAR</b>		
	There shall be a 12" wide folding ladder on the roadside rear of the apparatus for access to the main hose bed. The ladder shall be manufactured from 11 Gauge 304 - 2B stainless steel. Each rung of the ladder shall be 9 1/2" wide and shall be manufactured as an integral component of the side rails for maximum strength and rigidity. Each rung shall have a slip resistant dimpled surface. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The ladder shall come with a gas strut to assist in unfolding the ladder or for folding the ladder for storage while not in use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The hose bed access ladder shall have a weight rating of 500lbs.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Two (2) 30" 1 1/4" diameter aluminum knurled handrails shall be vertically attached on each side of the hose bed access ladder.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A single minimum 12" hand rail shall be supplied as an additional hand hold.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
98	<b>HOSE BED ACCESS LADDER STEP LIGHT</b>		
	The hose bed access ladder steps area shall be illuminated by one (1) EL2C LED light.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
99	<b>TAIL BOARD</b>		
	A heavy-duty 16" deep tail board shall be provided	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tail board shall be covered with slip resistant 3/16" embossed checker plate. The aluminum checker plate shall be bolted to the tail board sub frame with non-corrosive stainless steel bolts. The bolt on aluminum tread plate shall allow for easy removal for service.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	The forward section of the tail board shall be gapped to allow washing without dirt being trapped and for the drainage of accumulated water.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
100	<b>BODY HAND RAILS</b>		
	The following hand rails shall be installed on the apparatus body. • One (1) 36" mounted vertically on the curbside rear. • One (1) 48" mounted horizontally on the upper rear, below the hose bed area.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The body hand rail shall be 1 1/4" in diameter and shall be knurled aluminum for maximum grip and safety	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The hand rail shall be installed and supported with chrome plated polished cast brackets.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The hand rail brackets shall be provided with an isolation gasket and held in place with stainless steel screws.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Body Handrail - 36" - Aluminum Knurled	<input type="checkbox"/> Yes <input type="checkbox"/> No	
101	<b>ADDITIONAL BODY HAND RAILS - 12"</b>		
	The following additional body hand rails shall be installed on the apparatus body. • One (1) 12" knurled aluminum with chrome insert handrail(s).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
102	<b>FOLDING STEPS - CURB SIDE REAR</b>		
	One (1) folding aluminum steps shall be installed on the curb side rear of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The steps shall be Signatur 4 series, P/N 101953-2, folding steps with integral LED step lights above and below the step. The steps shall come complete with a NFPA 1901 slip resistant surface.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
103	<b>FOLDING STEPS - ROAD SIDE FRONT</b>		
	Four (4) folding aluminum steps shall be installed on the road side front of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The steps shall be Signatur 4 series, P/N 101953-2, folding steps with integral LED step lights above and below the step. The steps shall come complete with a NFPA 1901 slip resistant surface.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
104	<b>STEP LIGHTS - LED</b>		
	All steps on the body shall have adequate light, per the requirements of NFPA and ULC, for illumination. The lights shall be Tecniq EON-Linear White 2.9"W lights for folding and cast step lighting or shall be already supplied with the manufacturer supplied steps.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
105	<b>LICENSE PLATE ILLUMINATION</b>		
	A LED light shall illuminate the rear license plate mount.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
106	<b>CHEVRON STRIPPING</b>		
	There shall be 6" chevron stripping decals applied to the rear face of the apparatus. The chevron decals shall be made of high visibility Reflexite™ material that is red / yellow in color and shaped to form an "A" style pattern. A minimum of 50% of the rear body shall be covered with Chevron.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
107	<b>COMPARTMENT MATTING</b>		
	There shall be versatile PVC matting supplied on all body compartment floors. The matting shall be interlocking and 1" high to allow for air movement.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
108	<b>LEFT SIDE BODY COMPARTMENTS - HIGH</b>		
	The following compartments, with minimum measurements as detailed below, shall be provided on the driver's side of the apparatus body. • One (1) compartment forward of the rear wheel measuring 48.25"W x 69"H x 27"D frame opening. • One (1) compartment over the rear wheel measuring 62.25"W x 40"H x 27"D frame opening. • One (1) compartment behind the rear wheel measuring 48.25"W x 69"H x 27"D frame opening.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	The body compartments shall be fabricated with 1/8" 5083 - H321 salt water marine grade aluminum panels. These panels shall be non-corrosive, durable, and add strength and integrity to the body construction.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The interior compartment seams shall be sealed and caulked with a permanent, pliable automotive type sealer.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All compartments shall have a 1" drop on the lower edge of the door opening to accommodate the door seal, and to stop moisture from entering the compartment. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All compartments shall have sweep out floors.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All compartments shall be weatherproof.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
109	<b>SUCTION HOSE / PIKE POLE STORAGE COMPARTMENTS - INTERNAL - CURBSIDE</b>		
	There shall be one (1) aluminum rear slide in suction hose / Pike Pole storage compartment above the curbside compartments. The compartment shall be fully enclosed allow the storage of one length of hard suction hose and two aluminum pike pole storage tubes.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be a hinged aluminum door on the storage compartment with a positive twist type latch.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
110	<b>HARD SUCTION HOSE - KOCHEK</b>		
	One (1) ten-foot section(s) of 6" KocheK PVC lightweight, flexible, hard suction hose shall be provided with lightweight male and long handle fem threaded couplings.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
111	<b>SUCTION HOSE / PIKE POLE / STORAGE COMPARTMENT - INTERNAL - ROADSIDE</b>		
	There shall be one (1) aluminum rear slide in Suction Hose / Pike Pole storage compartment above the roadside compartments. The compartment shall be fully enclosed and allow the storage of one (1) length of hard suction hose, one (1) aluminum pike pole storage tube.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be a hinged aluminum door on the storage compartment with a positive twist type latch.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
112	<b>PIKE POLES</b>		
	The Proponent shall supply two (2) Duo-Safety Fiberglass Pike Poles with aluminum head, 1.75-inch diameter hollow handle, and 10 feet in length. Each Pole shall have a FPH Hook Head on one end.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
113		<input type="checkbox"/> Yes <input type="checkbox"/> No	
114	<b>RIGHT SIDE BODY COMPARTMENTS</b>		
	The following compartments, with minimum measurements as detailed below, shall be provided on the curbside of the apparatus body. • One (1) compartment forward of the rear wheel measuring 48.25"W x 69"H x 15"/ 27"D frame opening. • One (1) compartment over the rear wheel measuring 62.25"W x 40"H x 15"D frame opening. • One (1) compartment behind the rear wheel measuring 48.25"W x 69"H x 15" / 27"D frame opening.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The body compartments shall be fabricated with 1/8" 5083 salt water marine grade aluminum panels. These panels shall be non-corrosive, durable, and add strength and integrity to the body construction.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The interior compartment seams shall be sealed and caulked with a permanent, pliable automotive type sealer.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All compartments shall have a 1" drop on the lower edge of the door opening to accommodate the door seal, and to stop moisture from entering the compartment. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	All compartments shall have sweep out floors.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All compartments shall be weatherproof.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
115	<b>LADDER STORAGE COMPARTMENTS - INTERNAL</b>		
	There shall be an aluminum ladder storage compartment offset to the passenger side with access from the rear of the apparatus. The compartment shall be manufactured from 1/8" 5083-H32 aluminum and be sized to fit a 14' roof ladder, a 24' two section ladder and a folding attic ladder. There shall be dividers manufactured from 1/8" 5083-H32 aluminum to separate the ladders. The bottom of the ladder compartment shall have a 3/16" thick UHMW base to allow ease of ladder removal.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	There shall be a vertically hinged door manufactured from 1/8" 5083 - H32 aluminum with access from the curbside rear for access to the ladder compartment. The hinge shall be stainless steel. The door shall be secured with two (2) flush fit lift and turn paddle latches. The latches shall have a black finish.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Proponent to supply the following ladders as part of their Bid: <ul style="list-style-type: none"> <li>• One (1) Duo-Safety Solid Beam Aluminum Series 900-A Two (2) Section 24 Foot Ladder;</li> <li>• One (1) Duo-Safety Aluminum Series 775-A 14 Foot Roof Ladder.</li> </ul>		
116	<b>REAR BODY COMPARTMENT</b>		
	The following compartments shall be provided on the rear of the apparatus body. <ul style="list-style-type: none"> <li>• One (1) compartment measuring 44"W x 54"H x 30"D frame opening.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
117	<b>AMDOR ROLL UP DOORS</b>		
	The doors shall be Amdor Roll-Up type doors to include: double wall aluminum box section slats with integral hinge joint and recessed slat seal, reusable end shoes with snap-in securement, double wall aluminum reinforced bottom rail with either Stainless Steel Lift Bar door latching system, aluminum track with side frame, sill plate, and top gutter with non-marring top seal, side seals, bottom seal, with all wear component material to be Type 6 Nylon.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The slats shall have a true box section with a flat interior surface to prevent equipment hang-up. The slats shall have a face depth of 1.0 inches and a wall thickness of 0.045 inches. Each slat incorporates a recessed slat seal to weatherproof the compartment and reduce rattle between slats.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	For every inch of height an integral continuous hinge joint spans the width of the door to provide superior strength.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The door glides on non-interlocked end shoes. Each end shoe is independent and positively secured by an exclusive snap-in device. Door slats can be easily removed and replaced when required.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The Stainless-Steel Lift Bar system shall be provided to keep the door securely closed. This system complements the superior strength of the bottom rail with bottom seal and integral reinforcing flange.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Wear components are constructed of Type 6 Nylon to provide maximum strength and durability. Type 6 Nylon is a naturally lubricating material, which provides exceptional temperature characteristics.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Each door is equipped with slat, top, bottom and side seals to keep moisture and dirt on the outside. The non-marring top seal provides a seal without marking the door surface.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The compartment door at the L1 location shall be Amdor roll up style. The compartment door at the L2 location shall be Amdor roll up style. The compartment door at the L3 location shall be Amdor roll up style. The compartment door at the R1 location shall be Amdor roll up style. The compartment door at the R2 location shall be Amdor roll up style. The compartment door at the R3 location shall be Amdor roll up style. The compartment door at the B1 location shall be Amdor roll up style.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
118	<b>DOOR STRAPS</b>		
	All compartment doors that exceed comfortable open reach height of the 5th percentile adult female specified in the Canadian Motor Vehicle Safety Regulations shall receive a nylon loop pull strap.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
119	<b>COMPARTMENT SHELVING - ADJUSTABLE</b>		
	Seven (7) adjustable 3/16" aluminum compartment shelves with upturned edges shall be provided. Each shelf shall be provided with plastic matting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
120	<b>ADJUSTABLE SHELVING UNI-STRUT SIDE TRACKS</b>		
	Six (6) set(s) of four (4) aluminum Unistrut side tracks shall be provided for installation of adjustable shelves.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
121	<b>RUB RAILS - APPARATUS BODY - NON-SLIP</b>		
	Three inch "C" channel aluminum rub rails shall be bolted into place with nylon spacers on the lower framework below the apparatus body compartments. The rub rail will extend to the outside edges of the apparatus body for protection of the body from impact damage.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The top surface of the rub rail shall have a non-slip surface meeting the requirements of NFPA 1901 for non-slip walking surfaces.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
122	<b>REAR TOW HOOKS - PAINTED</b>		
	Two (2) heavy duty steel painted tow hooks shall be bolted directly to the rear frame rails.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The tow hooks shall be easily accessible from the rear of the apparatus body thru a removable panel. The panel shall have lift and turn paddle latches. The door shall be manufactured from 3/16" 5052 - H32 aluminum.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
123	<b>COMPARTMENT LIGHTS - LED</b>		
	All body compartments shall have LED lights activated by a switch. The LED compartment lights shall be flush mount and provide a consistent 120-degree wide beam pattern. There shall be a minimum of two strip lights installed in each compartment.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
124	<b>TRAFFIC CONTROL DIRECTIONAL LIGHT - LED</b>		
	One (1)ninety-one cm (36 inch) LED directional light shall be mounted on the rear of the vehicle as high as possible for best visibility.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The light shall have a manufacturer 5 year warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Traffic Advisor -Installation - Multiplex Chassis	<input type="checkbox"/> Yes <input type="checkbox"/> No	
125	<b>TRAFFIC CONTROL DIRECTIONAL LIGHT HOOD</b>		
	The traffic control directional light shall be surface mounted. The traffic control device shall be protected by the horizontal hose bed access handrail.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
127	<b>12V INVERTER</b>		
	One (1) Tundra 12V Inverter(s) shall be tied to the chassis batteries and mounted in a dry location on the apparatus as close as possible to the chassis battery system. A remote on/off switch shall be installed in the chassis cab to turn the inverter on and off.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The inverter is designed to deliver 2500 Watts or 20 amps at 120Volts. The inverter shall have a power surge capacity of 5000 Watts for one (1) second. The inverter will operate with input voltages between 11 and 15 volts DC. If the voltage drops lower than 11.5 volts, the low battery warning alarm will sound. The inverter will shut off if the voltage drops below 11 volts to protect the batteries from being discharged. The inverter will not restart until the input voltage exceeds 13.0 volts. The inverter will shut	<input type="checkbox"/> Yes <input type="checkbox"/> No	



No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	down if the voltage exceeds 15 volts. This protects the inverter from excessive input voltage.		
	The inverter shall come with two (2) 120V plug ins. Location to be determined at pre-construction meeting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Inverter installation location shall be determined by the Proponent.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
128	<b>BODY SCENE LIGHTING - LEFT</b>		
	Two (2) Fire Research Spectra Max LED Scene Light model SPA260-Q20 surface mount light shall be installed. The light shall be mounted with four (4) screws to a flat surface. It shall be no more than 5 7/8" high by 14 1/2" wide and have a profile of less than 1 3/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lamp head shall have sixty (60) ultra-bright white LEDs, 56 for flood lighting and 4 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 13.8/6.9 amps, and generate 20,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head shall be powder coated. The LED scene light shall be for fire service use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The location of the lights shall be determined at the pre-construction meeting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
129	<b>BODY SCENE LIGHTING - RIGHT</b>		
	Two (2) Fire Research Spectra Max LED Scene Light model SPA260-Q20 surface mount light shall be installed. The light shall be mounted with four (4) screws to a flat surface. It shall be no more than 5 7/8" high by 14 1/2" wide and have a profile of less than 1 3/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lamp head shall have sixty (60) ultra-bright white LEDs, 56 for flood lighting and 4 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 13.8/6.9 amps, and generate 20,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head shall be powder coated. The LED scene light shall be for fire service use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lights shall be controlled by a switch in the cab console.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The location of the lights shall be determined at the pre-construction meeting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
130	<b>BODY SCENE LIGHTING - REAR</b>		
	Two (2) Fire Research Spectra Max LED Scene Light model SPA260-Q20 surface mount light shall be installed. The light shall be mounted with four (4) screws to a flat surface. It shall be no more than 5 7/8" high by 14 1/2" wide and have a profile of less than 1 3/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lamp head shall have sixty (60) ultra-bright white LEDs, 56 for flood lighting and 4 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 13.8/6.9 amps, and generate 20,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head shall be powder coated. The LED scene light shall be for fire service use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lights shall be controlled by a switch in the cab console.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The location of the lights shall be determined at the pre-construction meeting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
131	<b>LED TELESCOPIC SCENE LIGHT</b>		
	Two (2) Fire Research Spectra LED Scene Light model SPA530-K28 side mount push up telescopic light shall be installed. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall rotate 360 degrees. The outer pole shall be a grooved aluminum extrusion and qualify as an NFPA compliant handrail. The pole mounting brackets shall have a 2 3/4" offset. Wiring shall extend from the pole bottom with a 4' retractile cord.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lamp head shall have 84 ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spotlight beam pattern. It shall operate at 12/24 volts DC, draw 19.2/9.6 amps, and generate 28,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spotlight beam into the distance. The lamp head angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamp head shall be no more than 5 3/8" high by 14" wide by 3 3/4" deep and have a heat resistant handle. The lamp head and mounting arm shall be powder coated. The LED scene light shall be for fire service use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lights shall be controlled by a switch in the cab console.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Location of light shall be: At Pump House	<input type="checkbox"/> Yes <input type="checkbox"/> No	
132	<b>ROOF MOUNT LED SCENE LIGHT</b>		
	A Fire Research Spectra Max LED Floodlight model SPA800-Q28 contour roof mount light shall be installed. The mounting brackets shall attach to the bottom of the lamp head and be machined to conform to the roof radius. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The lamp head shall have 84 ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 19.2/9.6 amps, and generate 28,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head shall be no more than 5 7/8" high by 14" wide. The lamp head and mounting bracket shall be powder coated. The LED scene light shall be for fire service use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The light shall be located at the vertical center of the cab roof and below the light bar facing forward.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
133	<b>GUIDE RAILS FOR TELELIGHTS</b>		
	Two (2) FRC "No Scratch" guide rails shall be installed in conjunction with the side mount raised telescopic lights. The guide rails shall consist of a guide collar, guide rail assembly and a steady rest bracket to prevent scratching and denting of the apparatus body surfaces.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Electrical wiring shall be provided in between each 12V light and the main 12v electrical distribution box to ensure a proper and safe connection.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Two (2) on/off toggle switches shall be provided for 12 Volt Lamps and shall be located as per the fire department's specifications.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
134	<b>HAZARD LIGHT SWITCH</b>		
	Fire Research Spectra – SW530 option raised pole hazard light switch shall be installed. A magnetic switch shall close when the pole is raised to activate a door ajar light in the chassis cab.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
135	<b>ELECTRICAL SYSTEM - MULTIPLEXED</b>		
	The manufacturer shall design the wiring system for the apparatus in accordance to the SAE, Society of Automobile Engineers.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The manufacturer shall determine the circuit loads and design the system to accommodate these loads with appropriate circuit routings and relays.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All wiring harnesses shall be properly secured and routed. All passages required for routing shall be grommited and sealed as required.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	All wiring shall be easily accessible for servicing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All wiring shall be SAE J1128 and SAE J1292 GXL type wire, as per fire industry standards.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All exposed wiring shall be crimped and heat shrunk for added protection.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The wiring harnesses shall be pre-engineered for correct circuit loading and shall be custom made. The harnesses shall be function, number, and color coded and shall be fitted inside automotive high temperature loom. All connections to the main panel box must be made with waterproof automotive style guided pin locking connectors	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	An enclosed main electrical distribution panel that provides protection against dirt, dust, oil, and water shall be installed in the upper section of the pump house.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All electrical connections to the panel shall be made through positive locking environmentally sealed connectors. The panel features a solid state power distribution board(s) with visual diagnostics.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All circuits are protected by automatic resetting circuit breakers. All breakers shall be properly sized to the circuit load and are direct plug in sockets.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All wiring shall have a strain pull test on wiring connections of 40 pounds.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
136	<b>BATTERY MASTER SWITCH</b>		
	A 300-amp solenoid master battery switch shall be installed in the cab within reach of the driver.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	An illuminated rocker switch shall be located on the cab dash and shall come with a label.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
137	<b>LIGHTING PACKAGE</b>		
	A Whelen Cencom Core Lighting system (or equivalent) shall be installed on the apparatus. This system shall be capable of Dynamic Variable Intensity (DVI) as well as Vehicle to vehicle sync	<input type="checkbox"/> Yes <input type="checkbox"/> No	
138	<b>ZONE A UPPER EMERGENCY LIGHTING</b>		
	The zone A upper emergency lighting zone shall have the following: A Whelen Edge® Ultra Freedom IV™ Linear Super-LED® LC Series 55" Light bar model # F4N2VLED shall be supplied and and mounted to the chassis using a Whelen Stainless steel mount. The mount shall allow for adjustment of the lightbar angle. The light bar shall have a manufacturer 5 Year Warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
139	<b>ZONE A LOWER EMERGENCY LIGHTING</b>		
	The zone A lower emergency lighting zone shall have the following lights and shall be mounted to the chassis grill:  Two (2) Whelen M6 Series Model # M6RC warning lights. These lights shall have a clear lens, red LED's and come with a chrome bezel. The light shall have a manufacturer Lifetime warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
140	<b>ZONE B UPPER EMERGENCY LIGHTING</b>		
	The zone B upper emergency lighting zone shall have the following: No emergency lights in this zone	<input type="checkbox"/> Yes <input type="checkbox"/> No	
141	<b>ZONE B LOWER EMERGENCY LIGHTING</b>		
	The zone B lower emergency lighting zone shall have the following: One (1) Whelen M6 Series Model # M6RC warning lights. These lights shall have a clear lens, red LED's and come with a chrome bezel. The light shall have a manufacturer Lifetime warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
142	<b>ZONE C UPPER EMERGENCY LIGHTING</b>		
	The zone C upper emergency lighting zone shall have the following: No emergency lights in this zone	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
143	<b>ZONE C LOWER EMERGENCY LIGHTING</b>		
	The zone C lower emergency lighting zone shall have the following: Two (2) Whelen M6 Series Model # M6RC warning lights. These lights shall have a clear lens, red LED's and come with a chrome bezel. The light shall have a manufacturer Lifetime warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
144	<b>ZONE D UPPER EMERGENCY LIGHTING</b>		
	The zone D upper emergency lighting zone shall have the following: No emergency lights in this zone	<input type="checkbox"/> Yes <input type="checkbox"/> No	
145	<b>ZONE D LOWER ZONE</b>		
	The zone D lower emergency lighting zone shall have the following:  Two (2) Whelen M6 Series Model # M6RC warning lights. These lights shall have a clear lens, red LED's and come with a chrome bezel. The light shall have a manufacturer Lifetime warranty.  Two (2) Whelen M7 Series Model # M7RC warning lights. These lights shall have a clear lens, red LED's and come with a chrome bezel. The light shall have a manufacturer Lifetime warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
146	<b>REAR WARNING LIGHTS - LED - UPPER</b>		
	Two (2) Whelen, model L31HRFN LED red beacons lights shall be provided and mounted for upper Zone C lighting, one (1) each side, and controlled by a switch located in the cab. The lights shall have a Lifetime manufacturer warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
147	<b>HEADLIGHT WIG WAG FLASHER</b>		
	The chassis high beam headlights shall be equipped with an alternating flashing, wig wag headlight system. An electronic flasher shall be used to control the lights. A control switch panel shall activate the flashing system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
148	<b>ELECTRONIC SIREN</b>		
	A Whelen CENCOM Core Compatible Control head shall be supplied and installed with all other components required to utilize all the features of the CENCOM Core Lighting System.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
149	<b>ELECTRONIC SIREN SPEAKER</b>		
	There shall be a Whelen model # SA315P, 123db / 100 watt electronic siren speaker provided at the front bumper and connected into the electronic siren.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The speaker shall have a manufacturer 2 Year warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
150	<b>SPEAKER COVER - BUMPER MOUNT</b>		
	The chassis bumper shall come with a cut out for mounting the siren speaker behind. The cut out shall come with a stainless-steel cover that is slotted to allow sound to pass thru.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The bumper shall be chromed after the cut out has been made. <b>(Mandatory Requirement)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
151	<b>REAR TAIL LIGHT ASSEMBLY</b>		
	The rear tail light assembly shall consist of the following:		
	There shall be a total of Two (2) Whelen Plast3V plastic brake / tail / turn light bezels installed on the rear of the apparatus. One each side. The bezels shall be attached with pre-tapped stainless steel fasteners.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Brake Light Assembly - M6 LED</u> There shall be Two (2) Whelen M62BTT Series LED turn lights installed on the rear of the apparatus. These lights shall be installed in the tail light bezels on the rear of the apparatus and shall come with red lenses. The lights shall have a Lifetime manufacturer warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Turn Light Assembly - LED</u> There shall be Two (2) Whelen M62T Series amber LED turn lights installed on the rear of the apparatus. These lights shall be installed in the tail light bezels on the rear of the apparatus. The lights shall have a Lifetime manufacturer warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	<u>Turn Light Assembly - LED - Maximum Intensity</u> There shall be One (1) White LED backup light installed on the rear of the apparatus. The light shall have a Lifetime manufacturer warranty.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
152	<b>GROUND LIGHTS - LED</b>		
	There shall be eight (8) LumaBar H2O 12" LED ground lights with outward facing angle brackets installed underneath the apparatus. The ground lights shall be activated by a switch installed in the chassis cab. Ground lights that are directly underneath a door opening will turn on automatically when the door is opened.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
153	<b>DOOR AJAR SYSTEM</b>		
	A chassis supplied red flashing warning light for the door ajar system shall be provided in the cab. This light shall be activated when a compartment door on the apparatus body is open.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A magnetic sensor shall be installed in all compartments with a roll up door	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A On / Off depression style switch shall be supplied in all compartments with a pan door.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
154	<b>CLEARANCE AND MARKER LIGHTS - LED</b>		
	All clearance / marker lights, reflectors shall comply with department of transport motor vehicle safety standards. The clearance / marker lights shall be LED (light emitting diode) type.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A set of LED (light emitting diode) mid body turn signals shall be installed to comply with department of transport motor vehicle safety standards for vehicles over 30 feet in length.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
155	<b>TWO WAY RADIO POWER SUPPLY</b>		
	There shall be one (1) dedicated 12V power supply line(s), powered when ignition in the on position, coiled underneath the chassis dash for the future installation of a Township supplied two-way radio.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
156	<b>INTERCOM HEADSET SYSTEM – SIGTRONICS (or equivalent)</b>		
	A Sigtronics intercom system shall be installed in the apparatus. The system shall consist of One (1) Mobile radio Interface module P/N MRIM-2. One P/N SE-8 dual ear cup headset shall be supplied.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A "Push to Talk" button shall be installed in an accessible location for radio communication. The Intercom system shall be designed to interface with one customer supplied radio.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	A weather resistant panel jack and "Push To Talk" Button shall be installed on the pump panel for remote radio operation.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
157	<b>ANTENNA MOUNT(S)</b>		
	One (1) mount(s) for future antenna installation shall be installed on the chassis cab roof. The antenna leads shall be wired to the chassis cab dash area for future installation of a radio.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
158	<b>PROVISION FOR FUTURE DEPARTMENT RADIO INSTALLATION</b>		
	A location shall be provided for a future installation of a Fire Department supplied radio. The location provided shall receive a radio, model (specify radio model to be installed after delivery).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
159	<b>RADIO FACEPLATE</b>		
	Each mounting location for a radio installation shall receive a Jotto face plate.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
160	<b>PAINT COLOR - CHASSIS</b>		
	The chassis shall be painted a single color by the chassis manufacturer. This shall be the final paint color and finish for the completed vehicle.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
161	<b>FINISH AND PAINTING - PPG</b>		
	The painting shall be done in accordance with automotive practices using Delfleet® Evolution FBCH high solids polyurethane paint with the PPG painting process.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All painting shall be baked at 160 degrees F. for a minimum 45 minutes to provide an automotive quality finish.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
	After assembly, the body substructure shall be deburred and hand sanded.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All ledges inside and outside shall be cleaned and sealed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	The painting process consists of the following applications: a) Wash entire body with DX 440 wax and grease remover b) Etch primer, PPG F3963 (0.2 - 0.35 mils dry) c) Primer, PPG F3975 (3.0 - 6.0 mils dry) d) Wash entire body with DX 330 wax and grease remover e) Primer sealer, Epoxy PPG F399x (1.0 - 4.0 mils dry) f) Base coat, Delfleet® evolution PPG FBCH (1.0 - 3.0 mils dry) g) Clear coat, PPG F3906 clear (minimum of 2.0 mils)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All outside seams that are not 100 percent welded shall be sealed and caulked inside and outside.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Only after the entire painting process is completed shall the body structures be installed on the chassis.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Only after the body is painted shall the components such as doors, aluminum inlay panels, mounting brackets, handrails, pump panels, and other accessories be installed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
162	<b>PAINT WARRANTY</b>		
	The paint shall be warranted by PPG for a period of Ten (10) years and shall be <b><i>non prorated</i></b> . (Mandatory Requirement)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Items covered in the warranty shall include all body interior and exterior surfaces and painted pump houses and shall cover the following: • Peeling or delaminating of the topcoat and other layers of paint. • Cracking or checking due to failure of the product. • Excessive loss of gloss caused by cracking, checking, or hazing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
163	<b>PAINT POLISH BODY - A.C.T. STANDARDS #6</b>		
	The paint finish on the body shall meet the ACT test panel #6 level for orange peel visual standard. Test sample swatches shall be made available on request for paint finish comparison. (Mandatory Requirement)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
164	<b>COMPARTMENT FINISH</b>		
	The interior of all compartments of the body shall also be sealed and caulked. A textured finish of light gray urethane paint with a dark gray spatter finish shall be applied to all compartment interiors.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
165	<b>KROWN RUST INHIBITOR</b>		
	There shall be an application of Krown rust inhibitor applied to the chassis and the apparatus body as per the supplier's recommendation for maximum rust protection, prior to delivery of the apparatus.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
166	<b>4" REFLECTIVE BODY PRIMARY STRIPING</b>		
	There shall be a four-inch-wide reflective stripe applied to the left and right sides of the apparatus according to the requirements of NFPA 1901 latest edition. The reflective stripe shall be a 3M Scotchlite product.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<u>Accent Stripe</u> - There shall be two (2) one-inch-wide reflective stripe(s) applied to the apparatus along with the primary reflective stripe. The reflective stripe shall be a 3M Scotchlite product. The accent stripe shall be the same color as the main stripe.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
167	<b>UPPER BODY LETTERING</b>		
	Up to forty-two (42) eight inch letters shall be applied to the top of the apparatus body on both sides. The lettering shall consist of either reflective vinyl material or imitation gold vinyl material and shall come with a black non reflective back round shadow.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
168	<b>WHEEL CHOCKS &amp; BRACKETS</b>		
	Two (2) SAC-44 Zico folding wheel chocks shall be provided complete with mounting brackets. The brackets shall be installed forward of the rear wheels and underneath the main body.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
169	<b>PERFORATED ALUMINUM BACK WALL</b>		
	The Upper Back wall in the R1 compartment will have a perforated aluminum back wall. This will be for mounting purposes.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

No.	DESCRIPTION	MEETS REQUIREMENTS (YES or NO)	COMMENTS OR SPECIFY ACTUAL
170	<b>120V ELECTRIC RECEPTACLE -- STRAIGHT BLADE</b>		
	<p>Seven (7) 120-volt 15-amp straight blade, 3-prong duplex receptacles shall be provided as follows:</p> <ul style="list-style-type: none"> <li>• Three (3) electric receptacles shall be located in the cab/crew cab passenger area;</li> <li>• Four (4) electric receptacles shall be located in the following body compartments as follows: <ul style="list-style-type: none"> <li>- One (1) in the L2 compartment;</li> <li>- Two (2) in the L3 compartment;</li> <li>- One (1) in the R3 compartment.</li> </ul> </li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All receptacle locations shall be determined at the pre-construction meeting.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All receptacles shall be connected directly to the shoreline power receptacle.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
171	<b>USB RECEPTACLE/PORTS</b>		
	<p>Four (4) receptacles/ports shall be provided. The receptacle/ports will be used to power an on-board iPad, and to other items including, but not limited to, cell phones, etc.</p> <ul style="list-style-type: none"> <li>• One (1) receptacle/port shall be located near the front passenger seat area to allow for the powering of the on-board iPad.</li> <li>• Three (3) receptacle/ports shall be located in the rear (passenger crew cab) side of the center console.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	All receptacle/ports shall be connected to the shoreline power connection.	<input type="checkbox"/> Yes <input type="checkbox"/> No	