SOUTH RIVER - MACHAR FIRE DEPARTMENT

FIRE APPARATUS TENDER

Sealed Proposals For: **ULC RATED "INITIAL ATTACK MINI-PUMPER FIRE FIGHTING APPARATUS "**

As Described Herein and Addressed:

South River - Machar Fire Department
Attention: Risto Maki, Fire Chief
63 Marie Street, PO Box 310
South River, ON
P0A 1X0

Fire Chief Contact Information

Office (705) 386-0066
Cell (705) 471-6764
Fax (705) 386-8587
email rmaki@srmfd.com

Will Be Received Until: **Tuesday, December 23, 2026, at 3:00 PM.**

1 Liability of Errors

The South River - Machar Fire Department has used considerable effort to ensure that information presented herein reflects, with reasonable accuracy, the nature of the goods and/or services requested and its factual components. The information is supplied as a guideline for respondents and may not be completely accurate, comprehensive or exhaustive. The South River - Machar Fire Department does not make any representation, warranty or guarantee as to the accuracy of the information contained herein. It is the respondent's responsibility to avail itself of all necessary information to prepare a response to this Tender. If respondents have any questions or issues they feel need to be addressed, contact the fire chief.

2 Tender Clarification

Report all discrepancies, omissions, errors, departures from codes or good practice, and points considered to be ambiguous or conflicting to the fire chief in writing, before the bid closing date so that The South River - Machar Fire Department may issue instructions, clarifications or amendments by addendum to all respondents prior to the bid closing date.

3 Addendum

The South River - Machar Fire Department, without liability, cost or penalty may, at any time prior to the closing time alter any details in this Tender. In the event that this Tender is amended via addendum, the remainder of the Tender that has not been modified shall remain unchanged.

Addenda may be necessary for:

- correction of the Tender and related forms;
- extension of the submission deadline;
- clarification of parts of the Tender;
- retraction or cancellation of the Tender;
- responses to bidders questions;
- other additions to, deletions from or alterations to the requirements contained in the Tender.

Each respondent shall acknowledge receipt of any addendum to this solicitation by signing and returning a copy of such addendum with its proposal.

Addenda will be available or sent by the following:

- Electronic mail to rmaki@srmfd.com and clerk@southriver.ca

4. General terms

Proposals that are incomplete, conditional, obscure, or contain alterations, erasures, or other irregularities may be rejected.

Failure to comply with the requirements of this tender may result in disqualification of the Proposal.

By submitting a Proposal, the Respondent represents that it has the legal capacity to enter into a Contract and complies with all applicable federal, provincial, and municipal laws and regulations.

Canadian Content: Where specifications, quality, performance, availability, and pricing are otherwise comparable, consideration may be given to **components manufactured or assembled in Canada**. Respondents are encouraged to identify Canadian-made components included in their Proposal.

5. Irrevocability

Subject to the respondent's right to withdraw a proposal prior to the closing time, all proposals will be irrevocable for a period of thirty (30) days after closing of the RFP.

6. Awarding of The Tender

The department reserves the right to not accept the tender to the lowest or any Tender.

7. Exceptions to The Tender

Any exceptions to this tender document no matter how small has to be detailed on a separate page listing the Section, item number, and a full description of the exception. Failure to do this may result in reject of the bid.

8. Engineered Drawing

An Engineered Drawing specific to the vehicle being bid must be included with the bid package. The drawings shall show the left and right sides as well as a front and rear view of the unit. The drawing must be specific to the unit being, it must not be a generic drawing. Failure to do this may result in reject of the bid.

9. Payment terms

The Municipality will NOT accept proposals that require any of the following:

- A deposit or advance payment at the time of order;
- Progress payments during the construction of the apparatus; or

- Mandatory payment for the chassis prior to delivery of the completed apparatus.

Bidders may propose an optional chassis payment arrangement where the Bidder can demonstrate that early payment for the chassis will result in a reduction in the overall purchase price of the apparatus. Any proposed chassis payment option must clearly identify the resulting cost savings to the Municipality.

Any proposed chassis payment arrangement must also provide the Municipality with the option to make no payment for the chassis prior to delivery and instead pay the full contract price, including the chassis, within thirty (30) days following delivery of the completed apparatus to the South River-Machar Fire Hall and the subsequent transfer of ownership of the vehicle to the Municipality.

The Municipality will not be obligated to participate in any proposed early chassis payment arrangement. The decision to utilize such an option will be at the sole discretion of the Municipality and will be based on the demonstrated financial benefit to the Municipality.

Where the Municipality elects not to utilize an early chassis payment option, payment for the full completed apparatus will be made within thirty (30) days following delivery of the completed vehicle to the South River-Machar Fire Hall and the subsequent transfer of ownership of the vehicle to the Municipality.

Bidders who require any of the above will NOT be considered and may be subject to disqualification.

10. Order of Reply

To aid in the evaluation of the tenders by the Fire Department, all bidders will provide their tender submission and specifications in the same order as the tender document. This will minimize the time required by the fire department to locate specific requirements and specifications that are required by the document.

Bidders must submit the Form of Quotation in a separate sealed clearly marked envelope,

Failure to observe this requirement may result in disqualification.

Number of Copies and Delivery Location

Bidders shall submit **three (3) complete physical** copies of their tender submission, including all supporting documentation, specifications, drawings, and pricing information.

All tender submissions must be received in a sealed envelope, clearly marked:

SOUTH RIVER-MACHAR FIRE DEPARTMENT
ULC RATED INITIAL ATTACK MINI-PUMPER FIRE FIGHTING APPARATUS TENDER

Submissions must be delivered to:

Village of South River
63 Marie Street
South River, Ontario
P0A 1X0

FORM OF QUOTATION

We, the undersigned, having carefully examined the proposed work and the proposal documents for the Supply of One New Pumper Unit to the South River - Machar Fire Department, hereby agree to supply and deliver the vehicle to the satisfaction of the Owner in conformity with the said documents.

Chassis and Equipment Pricing

Recognizing the extended procurement and construction timeline associated with this apparatus, and the potential inability of bidders to obtain firm pricing from chassis manufacturers and equipment suppliers at the time of tender, bidders may submit pricing for the chassis and applicable equipment based on the most current pricing available to the bidder at the time of tender submission.

Where firm pricing cannot be obtained, the bidder shall clearly identify the affected chassis or equipment and provide the basis upon which the quoted pricing has been established.

The final purchase price may be adjusted to reflect documented increases or decreases in the actual cost of the chassis and applicable equipment between the date of tender submission and the time the applicable order is placed or the pricing becomes firm.

Any proposed increase or decrease shall be supported by written documentation from the applicable manufacturer or supplier demonstrating the change in cost. Documentation shall identify the original quoted or estimated cost, the revised cost, and the applicable effective date or reason for the change.

The Owner shall not be responsible for unsupported, undocumented, or discretionary price increases. Any savings resulting from a reduction in the actual cost of the chassis or applicable equipment shall be passed on to the Owner as a corresponding reduction in the contract price.

This pricing adjustment provision applies **only to the chassis and applicable equipment** for which firm pricing is not reasonably available at the time of tender. **Pricing for the apparatus body and PTO-driven pump is not subject to this provision and shall be included in the bidder's firm tender price.**

The bidder shall identify within its tender any chassis or equipment items for which pricing is subject to this provision and shall clearly state the current known or estimated pricing used in establishing the tender price.

No price adjustment shall be permitted unless the bidder provides satisfactory supporting documentation and obtains the Owner's written approval prior to the adjustment being incorporated into the contract price.

SOUTH RIVER – MACHAR FIRE DEPARTMENT – Mini-PUMPER

Supply one new Pumper Fire Fighting apparatus
Complete as per the minimum specifications as detailed

Chassis	$ _____
Body	$ _____
Equipment	$_____
Sub Total	**$_____**
HST	$_____
Total with Taxes	**$_____**

Proposed Delivery - _____

_____
Bidder's Initials

COMPANY _____

AUTHORIZED REPRESENTATIVE _____

TITLE _____

SIGNATURE _____

SOUTH RIVER – MACHAR FIRE DEPARTMENT – Mini-PUMPER

RESPONDENT'S LIST OF REFERENCES

Note; It would be preferred that references be from customers who have more than ONE apparatus from the manufacturer being offered. At a minimum, the references MUST be from customers who have apparatus that has been in service for a minimum of 5 years. Recent deliveries shall not be included.

REFERENCE # 1	Complete all information areas
Fire Department	
Representative (including telephone #)	
Delivery Date	
Description of Vehicle	
REFERENCE # 2	
Fire Department	
Representative (including telephone #)	
Delivery Date	
Description of Vehicle	
REFERENCE # 3	
Fire Department	
Representative (including telephone #)	
Delivery Date	
Description of Vehicle	

PART 2 - GENERAL TERMS AND CONDITIONS

The purchaser's specification shall, in all cases, govern the construction of the apparatus, unless a properly documented exception or deviation was approved. Any bid indicating that the manufacturer's proposal shall supersede the purchaser's specification will be considered a complete substitute and immediately rejected.

THE PURCHASER HAS THE RIGHT TO REJECT ANY BID WHICH DOES NOT MEET THESE SPECIFICATIONS AND IS THE SOLE DECIDER TO DEEM WHICH BID IS IN THE BEST INTEREST OF THE PURCHASER.

YES		**NO EXCEPTION**

EXCEPTIONS

These specifications are based upon design and performance criteria which have been developed by the fire department as a result of extensive research and careful analysis. Subsequently these specifications reflect the only type of fire apparatus that is acceptable at this time and all specifications herein contained are considered as minimum. Therefore, exceptions to the specifications may not be accepted.

If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected.

Bidders shall indicate in the "yes/no" column if their bid complies on each item (paragraph) specified.

YES	NO	EXCEPTION/COMMENTS

Exceptions shall be allowed if they are equal to or superior to that specified and provided, they are listed and fully explained on a separate page. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary, and entitled "EXCEPTIONS TO SPECIFICATIONS". The buyer reserves the right to require a bidder to provide proof in each case that a substituted item is equal to that specified. The buyer shall be the sole judge in determination of acceptable substitutes.

Proposals that are found to have deviations without listing them or bids taking total exceptions to these advertised specifications will be rejected. (no exceptions)

Bids not including all exceptions shall be considered a material breach and shall result in the bid being immediately rejected. (no exceptions)

If discrepancies are noted between the “YES/NO “statements and the required DETAILED SPECIFICATIONS, the bid shall be immediately disqualified as a material breach.

YES	NO	EXCEPTION/COMMENTS

RESPONDENT SERVICE CAPABILITIES

The proposed apparatus represents a critical element of the provision of emergency services for the Municipality. As such, the department puts significant emphasis on the continued serviceability of the apparatus.

To ensure the apparatus remains in service, the successful bidder must have the capability to provide in station service to the components of the fire apparatus body. This service must be provided by the bidder; subcontracted agents are permitted to complete this warranty work.

YES	NO	EXCEPTION/COMMENTS

SERVICE AND WARRANTY SUPPORT

TO ENSURE FULL SERVICE AFTER DELIVERY, THE SELLING BIDDER/DEALERSHIP MUST BE CAPABLE OF PROVIDING SERVICE WHEN REQUIRED.

The bidder shall either:

- Operate and maintain its own authorized fire apparatus service center and parts repository; **or**
- Have a formal agreement or established contractual relationship with an authorized fire apparatus service center capable of providing the required warranty, service, maintenance, and parts support for the vehicle(s) being purchased.

The service center shall have the facilities, equipment, trained personnel, technical expertise, and access to replacement parts necessary to satisfy the manufacturer's warranty requirements and provide ongoing service and maintenance support throughout the expected service life of the apparatus.

This service center must have a staff of certified Emergency Vehicle Technician (EVT) or Master Emergency Vehicle Technicians (MEVT) and factory-trained mechanics, well versed in all aspects of service for all major components of the apparatus. The service center must be equipped to provide mobile apparatus repairs and service at the South River Machar Fire Department.

YES	NO	EXCEPTION/COMMENTS

STANDARD WARRANTY

The respondent will indicate the warranties on this unit below.

Body - _____

Paint - _____

Pump -_____

Tank - _____

YES	NO	EXCEPTION/COMMENTS

CERTIFICATION FOR FUSION WELDING OF ALUMINUM

Welding shall only be undertaken by a company Certified by the Canadian Welding Bureau to the requirements of CSA Standard W47.2-M1987, Certification of Companies for Fusion Welding of Aluminum.

The company shall employ full-time one or more welding supervisors responsible to the company for the supervision of welding. Each supervisor shall have five years of fabricating experience pertinent to the company's type of operation (Division 3).

The Canadian Welding Bureau is accredited by the Standards Council of Canada as a Certification Organization for the administration of CSA Standard W47.2.

YES	NO	EXCEPTION/COMMENTS

PLANT INSPECTION VISITS

Plant Inspection Visits are not included in the proposal price; any plant inspections will be done at the expense of the Fire Department.

YES	NO	EXCEPTION/COMMENTS

QUALITY SYSTEM REGISTERED TO ISO 9001:2000

The manufacturer shall maintain an ISO 9001-registered Quality Management System, registered by the Quality Management Institute (QMI), covering the production and installation of the apparatus. The manufacturer shall provide evidence of current ISO 9001 registration upon request.
This is a mandatory requirement. NO EXCEPTIONS

YES	NO	EXCEPTION/COMMENTS

MEMBER OF THE FIRE APPARATUS MANUFACTURER'S ASSOCIATION

The respondent shall be a member of FAMA (Fire Apparatus Manufacturer's Association). Current certificate to be attached to the bid document.

YES	NO	EXCEPTION/COMMENTS

DELIVERY SCHEDULE

The completed apparatus shall be delivered to the South River-Machar Fire Department at 148 Ottawa Avenue, South River ON during the first quarter of 2028, being no later than March 31, 2028.

The Bidder shall provide, as part of its proposal, an anticipated production and delivery schedule indicating the expected completion and delivery date of the apparatus.

The Bidder shall be responsible for coordinating the manufacture, inspection, testing, and delivery of the completed apparatus to ensure that the required delivery date is achieved.

The Municipality considers the first-quarter 2028 delivery requirement to be an essential requirement of this tender. Bidders shall clearly identify any circumstances that may affect their ability to meet the required delivery date.

YES	NO	EXCEPTION/COMMENTS

DELIVERY - FOB FIRE DEPARTMENT

The successful bidder shall, at his expense, deliver the apparatus to the Fire Department. A factory trained and authorized delivery instructor shall then remain with the apparatus to train Fire Department personnel. Training of personnel is essential to ensure that the purchaser and user are aware of, and instructed in, the proper operation, care and maintenance of the apparatus delivered. Training shall be a minimum of four hours.

YES	NO	EXCEPTION/COMMENTS

PAYMENT TERMS – DUE ON DELIVERY

Bids that do not provide the Municipality with the option to pay the full contract price within thirty (30) days following delivery of the completed apparatus will not be considered.

YES	NO	EXCEPTION/COMMENTS

INTENT

In the event of a disagreement between this proposal and the tender document, the tender document will prevail. Exceptions to this will occur when a "List of Deviations" is submitted. It is the INTENT of these specifications to describe, in detail, the minimum requirements for a first class, CUSTOM BUILT, FIRE-FIGHTING UNIT. All parts not specifically mentioned which are necessary in order to provide a complete custom motor propelled truck shall be furnished by the bidder and shall conform in strength and quality of workmanship to that usually provided by the engineering practice indicated in these specifications.

YES	NO	EXCEPTION/COMMENTS

ULC S515-2024 COMPLIANCE

The apparatus shall be constructed to ULC S515-2024 requirements and the unit shall also meet Department of Transportation regulations.

The unit shall also meet Canadian Motor Vehicle Safety Standards.

YES	NO	EXCEPTION/COMMENTS

ULC TESTING

This unit shall be tested by Underwriters' Laboratories of Canada at the Manufacturers Plant in order to ensure compliance with applicable standards. The tests include:

- a weight test, to ensure that the vehicle is not overweight on either axle or in total
- a road test, to check acceleration and braking

After this test, a plate shall be installed showing the test date, unit serial number, and no-load governed speed of the engine. CMVSS certification and safety mark are also installed.

TESTING SHALL BE PERFORMED BY A CERTIFIED ULC INSPECTOR – **NO EXCEPTION.** THIRD PARTY TESTING SHALL NOT BE ACCEPTED

YES	NO	EXCEPTION/COMMENTS

PART 3 - APPARATUS SPECIFICATIONS

CHASSIS GVWR

The GVWR of the chassis shall be adequate to carry the fully equipped apparatus including full water and other tanks, the specified hose load, unequipped personnel weight, ground ladders, and a miscellaneous equipment allowance in accordance with specified standards.

YES	NO	EXCEPTION/COMMENTS

MANUALS - TWO COPIES

At the time of delivery, two (2) copies of complete operation and service manuals will be provided covering the completed apparatus (body and equipment) as delivered and accepted, including the pump, wiring diagrams, lubrication charts, and firefighting equipment delivered with the apparatus. Chassis manuals are those supplied by the chassis manufacturer.

YES	NO	EXCEPTION/COMMENTS

MAXIMUM OVERALL LENGTH AND HEIGHT

The overall length of the completed apparatus shall not exceed **282”**
The overall height of the completed apparatus shall not exceed **120”**

YES	NO	EXCEPTION/COMMENTS

CHASSIS

Ford F-550 XLT, Regular Cab, 4x4, diesel engine, 2028 model year, equipped with Ford Pro Power Onboard 2 kW system.

YES	NO	EXCEPTION/COMMENTS

CHASSIS MOTOR VEHICLE INSPECTION REQUIRED

The completed apparatus shall have undergone a PMCVI and the yellow sticker shall bear the month of inspection prior to delivery. The sticker shall be displayed on the driver’s side door window of the apparatus.

YES	NO	EXCEPTION/COMMENTS

MAXIMUM RIDERS SIGN - 2 PERSONS

An accident prevention sign shall be affixed in the cab stating the maximum number of personnel the vehicle is designed to carry per NFPA standards. The sign shall be located in an area visible to the driver.

YES	NO	EXCEPTION/COMMENTS

SEAT BELT WARNING LABEL

Signs that state "Occupants must be seated and belted when apparatus is in motion" shall be provided. They shall be visible from each seated position.

YES	NO	EXCEPTION/COMMENTS

FLUID CAPACITY PLATE

A permanent plate shall be affixed in the driver's compartment specifying the quantity and type of the following fluids used in the vehicle as applicable:

Engine Oil	Engine Coolant
Transmission Fluid	Drive Axle Lubrication Fluid
Air conditioning refrigerant	Air conditioning lubricant
Power steering fluid	Air compressor system lubricant
Front tire cold pressure	Rear tire cold pressure

YES	NO	EXCEPTION/COMMENTS

APPARATUS INFORMATION LABEL

An information label is provided in the chassis cab, visible to the driver, stating:
"When manufactured, this vehicle was:
** m high
** m long
** kg GVW
Changes in height since the apparatus was manufactured shall be noted on this plate by the Fire Department"

YES	NO	EXCEPTION/COMMENTS

NON-REMOVABLE KEY

The ignition key shall be made non removable from the cab interior by installation of a chain which attaches the key to the cab dash.

YES	NO	EXCEPTION/COMMENTS

HOSE BED CAPACITY - STANDARD ULC PUMPER

The hose bed on this vehicle is designed for the standard ULC hose storage requirement:
The hose load expected on this vehicle is:

- 600' of 3" double jacket hose
- 500' of 4" double jacket hose

YES	NO	EXCEPTION/COMMENTS

EQUIPMENT CARRYING CAPACITY - STANDARD ULC PUMPER

The vehicle shall be designed to carry a minimum ULC miscellaneous equipment load of **1,500 pounds** for a Mini Pumper with a GVW of 15,001 to 19,500 pounds. This allowance shall be incorporated into the apparatus design, GVWR, axle ratings, suspension capacity, weight distribution, and payload calculations, with the completed apparatus remaining within all applicable ratings.

YES	NO	EXCEPTION/COMMENTS

REAR STEP WARNING LABEL

An accident prevention sign shall be located at the rear step area of the vehicle. It shall warn personnel that standing on the step while the vehicle is in motion is prohibited.

YES	NO	EXCEPTION/COMMENTS

REAR MUDFLAPS

Heavy duty mudflaps shall be installed behind the rear wheels to guard against road wash and debris.

YES	NO	EXCEPTION/COMMENTS

FUEL FILL LABEL -ULTRA LOW SULFUR DIESEL ONLY

A label indicating "Ultra Low Sulfur Diesel Only" is installed at chassis fuel tank fill connection.

YES	NO	EXCEPTION/COMMENTS

CHASSIS CAB PAINTED SINGLE COLOUR BY CHASSIS OEM

The chassis for this vehicle is not painted, the body will be painted to match the colour of the chassis.

YES	NO	EXCEPTION/COMMENTS

TRANSMISSION PROGRAMMING -

The electronic control for the transmission is programmed to meet ULC and NFPA standards.

YES	NO	EXCEPTION/COMMENTS

REAR TOW HOOKS - UNDER BODY

Towing devices will be installed at the rear of the unit, attached directly to the frame of the chassis.

YES	NO	EXCEPTION/COMMENTS

MASTER BATTERY DISCONNECT INCLUDED WITH CHASSIS
A master disconnect is provided with the chassis to isolate the batteries from electrical loads.

YES	NO	EXCEPTION/COMMENTS

BACK UP ALARM INCLUDED WITH CHASSIS
The back up alarm provided with the chassis shall be installed at the rear of the unit, wired to operate when the transmission is in Reverse.

YES	NO	EXCEPTION/COMMENTS

ELECTRIC SYSTEM MANAGER INCLUDED WITH CHASSIS
The apparatus shall be equipped with an ULC compliant electrical system load manager.

YES	NO	EXCEPTION/COMMENTS

PUMP AND PLUMBING
PUMP - The apparatus shall be equipped with a **PTO-driven, factory-manufactured and tested 1,050 IGPM midship pump**, driven by the chassis transmission and meeting current applicable **NFPA 1901** performance requirements. The pump shall be hydrostatically tested to **600 PSI (41.3 bar)** and equipped with a **single spring-loaded, maintenance-free mechanical seal**. Operation shall be free of objectionable pulsation and vibration.

YES	NO	EXCEPTION/COMMENTS

VALVES AND CONTROLS - SIDE MOUNT PANEL E
All **1-inch and larger in-line valves** shall be full-flow, drop-out type with chrome-plated locking "T" handles. **2½-inch discharge valves** shall use lever controls or locking "T" handles at the pump operator's panel. **3-inch and larger discharge valves** shall have controlled opening and closing in accordance with applicable **ULC and NFPA standards**.

YES	NO	EXCEPTION/COMMENTS

PIPING STAINLESS STEEL - NON-MANIFOLD PUMPS
Piping shall be **heavy-duty stainless steel** with non-corrosive water-contact components. Flexible couplings shall be used as required for vibration and chassis flex, with non-hardening sealant on threaded joints. The pump, valves, and suction piping shall be **hydrostatically and vacuum tested**. Vacuum shall reach **24 inches and hold for 10 minutes**, with loss not exceeding **10 inches**.

YES	NO	EXCEPTION/COMMENTS

THREADS
All threads shall be provided or adapted for Ontario operations;
1-1/2" thread specifications - NPSH 2-1/2" thread specifications - CSA

YES	NO	EXCEPTION/COMMENTS

PIPING HYDROSTATIC TEST
The pump and plumbing shall be **hydrostatically tested to 250 PSI for 3 minutes**, with the Tank Fill and Tank-to-Pump valves closed and all other inlets and outlets open and capped.

YES	NO	EXCEPTION/COMMENTS

ANODES IN SUCTION AND DISCHARGE PIPING
Two anodes shall be installed, one in the suction side of the pump and one in the discharge side of the pump to protect the pump and piping from galvanic corrosion.

YES	NO	EXCEPTION/COMMENTS

TANK TO PUMP SS 3" W/ CHECK VALVE NON-MANIFOLD PUMP
A 3" quarter turn valve with check valve to prevent accidental pressurization of the water tank through the pump connection is installed in the supply line from the tank to the pump.

YES	NO	EXCEPTION/COMMENTS

TANK FILL VALVE 2" SS
A 2" quarter turn valve is installed in the supply line from the pump to the tank.

YES	NO	EXCEPTION/COMMENTS

SUCTION - 6" 1 SIDE GATED EACH SIDE SS NON-MANIFOLD PUMP 6" HEADER
The apparatus shall be equipped with two 6-inch stainless-steel, non-manifold pump intakes, with one gated intake on pump panel side, each fitted with a long-handle chrome-plated cap and a removable inlet strainer. The master intake suction valve shall be electrically controlled from the officer's side pump operator's module.

YES	NO	EXCEPTION/COMMENTS

INTAKE 2-1/2" LEFT SIDE SS, BLEEDER, NON-MANIFOLD PUMP
One (1) 2-1/2" quarter-turn ball valve with chrome-plated female swivel, bleeder valve, chrome plug and chain shall be provided on the left-side pump panel and operated by a lever or locking pull control.

YES	NO	EXCEPTION/COMMENTS

SUCTION - 2-1/2" RIGHT SIDE SS, BLEEDER
One (1) 2-1/2" quarter-turn ball valve with chrome-plated female swivel, bleeder valve, chrome plug and chain shall be provided on the right-side pump panel and operated by a lever or locking pull control.

YES	NO	EXCEPTION/COMMENTS

DISCHARGE 4" RIGHT DISCHARGE, PLUMBED 3”
One (1) 4" right side; plumbed with 3" discharge valve, includes slow close device, 30-degree 3" x 4" Storz adapter, bleeder valve, and blind cap.

YES	NO	EXCEPTION/COMMENTS

2-1/2" RS DISCHARGE SS, BLEEDER
One (1) 2-1/2" discharge plumbed with 2-1/2" discharge valve, including 30-degree chrome plated droop snoot, bleeder valve, and rocker lug chrome cap with chain shall be provided on the right-side pump panel.

YES	NO	EXCEPTION/COMMENTS

2-1/2" LS DISCHARGE SS, BLEEDER
One (1) 2-1/2" discharge plumbed with 2-1/2" discharge valve, including 30-degree chrome plated droop snoot, bleeder valve, and rocker lug chrome cap with chain shall be provided on the left side pump panel.

YES	NO	EXCEPTION/COMMENTS

2-1/2" REAR DISCHARGE SS, PLUMBED 2-1/2", BLEEDER
2-1/2" rear pre-connect under the hose bed, plumbed with 2-1/2" valve. Includes 30-degree droop, bleeder valve, rocker lug chrome cap and chain.

YES	NO	EXCEPTION/COMMENTS

1-1/2" CROSSLAY (EACH) SS, 2" VALVE, BLEEDER
Two (2) 1-1/2" pre-connect in transverse hose bed above the pump panel. Equipped with swivel to allow use from either side of the unit, plumbed with 2" valve to allow the use of 1-3/4" discharge hose. The transverse hose bed is equipped with stainless steel rollers on each end for easier hose removal. Bleeder valve provided on pump panel.

YES	NO	EXCEPTION/COMMENTS

2-1/2" CROSSLAY SS, PLUMBED 2-1/2", BLEEDER

One (1) 2-1/2" pre-connect in transverse hose bed above the pump panel, equipped with swivel to allow use from either side of the unit and is plumbed with a 2-1/2" valve and panel mounted bleeder valve. Stainless steel rollers are installed at each end of the hose bed.

YES	NO	EXCEPTION/COMMENTS

PIPING FOR MONITOR SS, PLUMBED 3", BLEEDER

One (1) 3" discharge for a deck gun plumbed shall be provided at the front of the apparatus body. The discharge shall be plumbed with a 3" valve with slow close device. A monitor shall be provided with the completed apparatus as specified below.

YES	NO	EXCEPTION/COMMENTS

PUMP SHIFT - PTO PUMP

The Pump Shift for the PTO will include interlocks and an indicator light stating "OK TO PUMP" The remote electronic throttle will be energized in this mode.

YES	NO	EXCEPTION/COMMENTS

FRC IN CONTROL

This apparatus shall be equipped with an FRC InControl engine/pump governor/throttle system that is connected directly to the Electronic Control Module (ECM) mounted on the engine. The control is to operate as a pressure sensor (regulating) governor (PSG) eliminating any need for a relief valve on the discharge side of the pump.

A special preset feature shall permit a predetermined pressure or RPM to be set. The preset pressure or RPM will be displayed on the message display of the unit. The preset shall be easily adjustable by the operator.

In addition, the InControl displays engine oil pressure, water temperature, and battery voltage with alarms for when these readings are abnormal; and the inlet and outlet pump pressures - eliminating the need for compound gauges.

YES	NO	EXCEPTION/COMMENTS

SUCTION SIDE RELIEF V/V

A pre-set, spring-loaded 2-1/2" adjustable relief valve shall be installed to protect against excessive incoming pressure. The valve shall be adjustable from 75 to 250 PSI, shall be preset at 125 PSI, and shall attach directly to the pump suction manifold. The outlet shall be piped away from, but within sight of the pump operator and shall terminate with a 2-1/2" male adapter labelled "Intake pressure relief outlet - Do not cap". Shut-off valves or other means to

disable the operation of the relief system shall not be permitted. Caps will not be installed in this line.

YES	NO	EXCEPTION/COMMENTS

PRIMER ELECTRIC VANE TYPE 12V

The apparatus shall be equipped with a pre-primer for the gated suction Hale primer, consisting of a positive-displacement rotary-vane, electric motor-driven priming pump compliant with applicable NFPA requirements. The primer shall have a heat-treated, anodized aluminum body for corrosion and wear resistance and shall be capable of producing a minimum vacuum of 24 in. Hg (610 mm) at 2,000 ft (610 m) above sea level. The electric motor shall be a totally enclosed 12 VDC or 24 VDC unit, with maximum current draw not exceeding 300 amps at 12 VDC or 150 amps at 24 VDC. The priming system shall be operated by a single control located on the pump operator's panel.

YES	NO	EXCEPTION/COMMENTS

HEAT EXCHANGER

The chassis radiator hose shall be equipped with a high-efficiency tube bundle type closed circuit heat exchanger, which uses pump flow to reduce engine heat without contaminating engine coolant. The system shall be controlled by a 1/4-turn valve on the pump operator's panel. A drain shall be furnished in the engine cooler line.

YES	NO	EXCEPTION/COMMENTS

MASTER DRAIN V/V, 12 PORT

A master drain valve will be provided. The valve will be located on the left side pump panel and connected in such a manner as to allow complete water drainage. Water will be drained below the apparatus body away from the pump operator.

YES	NO	EXCEPTION/COMMENTS

DRAIN VALVE FOR FOAM SYSTEM HEADER

A drain valve is provided to relieve pressure in the foam system header beyond the check valve and reduce the chance of foam infiltration in the pump.

YES	NO	EXCEPTION/COMMENTS

FOAM SYSTEM - HYPRO FOAMPRO 1600

The apparatus shall be equipped with an FRC/Foam Pro 1600 System. The system shall be an electronic powered plunger type, fully automatic, variable speed, direct injection, discharge side foam proportioning system. The foam system shall be capable of injecting Class "A" or Class "B" foam from 0.1% to 1% based on the direct measurement of water flows and remain

consistent within the specified flows and pressures. Hydraulic powered foam systems shall not be considered.

The System shall be equipped with a control module, suitable for installation on the pump panel with a single ON/OFF switch and a Manual Dial foam percentage control. Incorporated within the motor driver shall be a microprocessor that receives input from the system flowmeter, while also monitoring foam concentrate pump output, comparing values to ensure that the operator preset proportional amounts of foam concentrate is injected into the discharge side of the water pump.

The control module shall enable the pump operator to:

Activate the foam proportioning system using an ON/OFF toggle switch.
Select proportioning rates from O. 1% to 1%.

The system shall have the ability for continuous firefighting operation while refilling the foam concentrate tank.

YES	NO	EXCEPTION/COMMENTS

LABELS

Labels shall identify the approved foam concentrate, restrictions, and include **"Warning: Do Not Mix Brands and Types of Foam."**

An operator-position instruction plate shall include a **piping schematic, operating instructions, foam classification, compatible concentrates, minimum/maximum water flow, and operating pressures**.

YES	NO	EXCEPTION/COMMENTS

NFPA FOAM SYSTEM CERTIFICATION TEST

Certification by manufacturer required stating the following (NFPA 21.11.1):

-Foam system, as installed, complies with the foam equipment manufacturer's installation recommendations

-Foam system has been calibrated and tested to meet the foam equipment manufacturers and the purchaser's performance requirements

-The accuracy of the foam proportioning system meets the requirements of 21.10 (-0/+40% for ratios less than 1%; -0/+30% or one percentage point, whichever is less, for ratios of 1% and greater)

YES	NO	EXCEPTION/COMMENTS

WATER AND FOAM TANK

The tank shall have the capacity specified within this proposal complete with a Lifetime Warranty.

CONSTRUCTION:
The tank shall be constructed of 1/2" thick non-corrosive stress relieved Copolymer Polypropylene thermoplastic.
The booster tank shall be so designed to be completely independent of the unit body and compartments and shall be of specified configuration.

All transverse swash partitions shall be manufactured of 3/8" thick Copolymer Polypropylene minimum and shall extend to just under the cover. The longitudinal swash partitions shall be constructed of 3/8" Copolymer Polypropylene and extend from the floor of the tank through the cover. In cases where the overall height of the tank exceeds 40 inches reinforcement shall be installed on the tank bottom to allow for more positive welding and provide greater strength.
All swash partitions shall be designed in such a manner as to reducing the water surge to a minimum for greater vehicle stability while still providing maximum air and water flow throughout the tank. All swash partitions interlock with one another and shall be welded to the walls of the tank as well as to each other. All joints and seams shall be nitrogen welded and shall undergo a high frequency voltage testing during fabrication of the tank.

TANK COVER:
Standard tank cover shall be fabricated of 1/2" Copolymer Polypropylene in three pieces recessed 3/8" from the top of the tank. All covers shall be welded to both the outer walls and longitudinal partitions for maximum integrity. Copolymer Polypropylene solid stock shall be installed through each cover and shall serve as both the anchorage location for lifting eyes and reinforcing the rigidity of the cover under fast filling conditions.

FILL TOWER:
The tank shall be equipped with a manual fill tower combined with vent and 1/4" Polypropylene removable screen. The Fill tower shall be constructed of 1/2" Copolymer Polypropylene with a minimum dimension of 8"x 8" and shall have a hinged type cover. Inside the fill tower approximately half way from the top shall be fastened a vent overflow pipe. The vent overflow pipe shall be minimum 4" ID schedule 40 Polypropylene designed to run through the water tank and discharge behind the rear axle at a location specified by the purchaser to better maximize vehicle traction. The fill tower shall be located in the front left corner of the tank unless otherwise specified by the purchaser in Special Provisions.

SUMP BOX:
The tank shall have one (1) sump and shall be constructed of 1/2" Copolymer Polypropylene and location shall be specified by the purchaser.
On tanks that require a front suction, a 3" NPT schedule 40 Polypropylene pipe shall be installed with a dip tube from the front of the tank to the tank sump box. The sump shall have a 3" NPT threaded outlet on the bottom and shall be used as a combination clean out and drain. An ant swirl plate shall be located on all tanks approximately 2" above the sump.

MOUNTING

The tank shall rest on the body cross members and may require additional support so as not to allow for more than 520 square inches of unsupported area under the area of the tank floor, and in cases where overall height of the tank exceeds 38 inches, the unsupported area of the tank floor shall be reduced to not more than 390 square inches. Additionally, the tank must have support to the contour of the tank floor and outside perimeter to prevent tank from shifting side to side and from front to rear. Where square tubing and/or channel subframes are incorporated in the manufacturer's body structure, corner angles shall be installed having a minimum of 4" x 4" x 1/4" x 6" in height for the purpose of capturing and preventing shifting of the tank. The tank must be completely isolated from the supporting crossmembers with the use of rubber strips with a minimum thickness and width dimension of 1/4" x 2" and a minimum Rockwell Hardness of 60 durometer. In installations where tank hold downs are not incorporated in the construction of the body, a restraint system shall be installed using angle having the minimum dimension of 3" x 3" x 1/4" with a total length of 6" to 14" long bolted to the side of the body of the vehicle halfway from the front and rear of the tank and extended down to rest on the top outside edge of the tank and shall be isolated from the tank using a hard rubber pad with 1/4" minimum thickness affixed to the underside of the angle. Mounting block and hose bed floor designs shall be fabricated so that the floor slat supports extend from side wall to side wall and shall not be permitted to drop off the edge of the tank or come in contact with the covers where a puncture could occur. Hose floor while have a loading capacity of 200 pounds per square foot, and whenever possible shall be evenly distributed. The tank shall be completely removable without dismantling or disturbing the apparatus body structure.

YES	NO	EXCEPTION/COMMENTS

WATER TANK CAPACITY CERTIFICATION (TANK MANUFACTURER)

A certificate specifying the capacity of the water tank shall be provided by the water tank manufacturer. The tank shall have a certified capacity of 300 US gallons.

YES	NO	EXCEPTION/COMMENTS

FOAM CELL - 20 US GALLON

The water tank shall include an **integral 20 US-gallon foam cell** with a clearly labelled separate fill tower. A **coloured fill tower is preferred**.

YES	NO	EXCEPTION/COMMENTS

TANK CONNECTIONS

The tank shall come with following fittings for connection by the apparatus manufacturer;

One (1) 4" tank to pump connection
One (1) 1" water level gauge connection
One (1) 2" tank fill connection
One (1) 3" direct fill connection
One (1) 3" plug in sump box- A 3" plug is installed in the tank sump box cleanout.

YES	NO	EXCEPTION/COMMENTS

BASE ELECTRICAL SYSTEM

All electrical circuit feeder wiring supplied and installed by the apparatus manufacturer shall be stranded alloy copper conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected. Insulation shall be in accordance with SAE J1128, type SXL, and wired to SAE J1292, for such loading at the potential employed. Voltage drops in all wiring from the power source to the using device shall not exceed 10%. Overall covering of conductors shall be 280 degrees F. minimum flame retardant loom or braid. All connections shall be made with lugs or terminals mechanically secured to the conductors. Wiring shall be thoroughly secured in place and suitable protected against heat, oil and physical damage. All body wiring is colour coded and marked every 3" as to function. All circuits are protected by autoreset circuit breakers. The power distribution panel is located in the pump compartment or behind the back wall of the front side compartment depending on the muffler location. Circuits are provided with properly rated low voltage overcurrent protective breakers. Such circuit breakers are readily accessible and protected against excessive heat, physical damage and water spray. Switches, relays, terminals and connectors have a direct current rating of 125% of maximum current for which the circuit is protected. All wiring is done to NFPA standards and SAE standards and complies with CMVSS regulations.

YES	NO	EXCEPTION/COMMENTS

WARNING LIGHT CERTIFICATION

Certification from the warning light manufacturer shall be provided to confirm that the lighting system meets current NFPA 1901 standards.

YES	NO	EXCEPTION/COMMENTS

ELECTRICAL SYSTEM TEST

The low voltage electrical system shall be tested as outlined in the appropriate standard - including reserve capacity test, alternator performance test, and low voltage alarm test.

YES	NO	EXCEPTION/COMMENTS

ROCKER SWITCH PANEL WITH MASTER WARNING SWITCH

A rocker switch panel shall be installed in the apparatus console as specified. The switch panel shall be equipped with a Master switch to control all emergency lighting to comply with applicable standards as well as individual switches for specified lighting.

YES	NO	EXCEPTION/COMMENTS

SIREN: The apparatus shall be equipped with a **Federal PA300 100-watt siren** mounted in the cab, providing **yelp, wail, and priority tones**, PA operation with microphone, manual siren operation, and the ability to broadcast radio

transmissions through the siren speaker. The siren controls shall be positioned for operation by either the driver or officer.

YES	NO	EXCEPTION/COMMENTS

SPEAKER: Two (2) **100-watt siren speakers** shall be mounted behind the chassis front bumper, with one (1) speaker positioned on each side.

YES	NO	EXCEPTION/COMMENTS

WARNING LIGHTS

The completed apparatus shall be equipped with LED warning lights as follows;

LIGHT BAR: The apparatus shall be equipped with one Federal Allegiant - NFPA 53" LED light bar NFPA-compliant mounted on a reinforced cab roof. The light bar shall have LED light heads with red and blue lenses and be controlled from the cab

YES	NO	EXCEPTION/COMMENTS

Front: The apparatus shall be equipped with two (2) Federal QL43 flashing LED warning lights mounted at the front, one on each side, with red on the left and blue on the right.

YES	NO	EXCEPTION/COMMENTS

Front: The apparatus shall be equipped with one (1) pair of hideaway LED strobe warning lights installed in the front headlight assemblies.

YES	NO	EXCEPTION/COMMENTS

Front: The unit shall be equipped with one (1) SPA 830 brow light, installed and integrated into the apparatus in accordance with the manufacturer's specifications.

YES	NO	EXCEPTION/COMMENTS

Rear: The apparatus shall be equipped with one (1) Federal Signal Master SL8S eight-lamp amber LED flashing directional warning light system mounted beneath the rear hose bed, with controls located in the cab, for traffic control and enhanced visibility when parked on a roadway.

YES	NO	EXCEPTION/COMMENTS

Rear: The apparatus shall be equipped with red and blue flashing LED warning lights at the rear, consisting of Federal QL64 LED flashers, with red on the left and blue on the right, integrated into the tail light module.

YES	NO	EXCEPTION/COMMENTS

Rear: The apparatus shall be equipped with red and blue flashing LED rear warning lights, consisting of Federal QL97 LED flashers, with red on the left and blue on the right.

YES	NO	EXCEPTION/COMMENTS

Rear: The apparatus shall be equipped with four (2) Quadra Flare LED tail/brake, turn signal, backup, and warning light modules, installed at the rear of the unit, with one module on each side as applicable.

YES	NO	EXCEPTION/COMMENTS

Rear: The apparatus shall be equipped with rear-facing Whelen M6ZC LED scene lights, mounted on the upper rear of the apparatus body.

YES	NO	EXCEPTION/COMMENTS

Sides: The apparatus shall be equipped with flashing red and blue Federal QL43 LED intersection lights mounted on the sides of the hood, with red on the left and blue on the right.

YES	NO	EXCEPTION/COMMENTS

Sides: The apparatus shall be equipped with flashing red and blue Federal QL43 LED intersection lights mounted in the sides of the rear fender wells, with red on the right and blue on the left.

YES	NO	EXCEPTION/COMMENTS

Sides: The apparatus shall be equipped with two (2) Federal QL97C-RW and two (2) Federal QL97C-BW flashing LED warning lights, with one (1) red and one (1) blue light on each side, located at the front and rear upper corners of the apparatus body.

YES	NO	EXCEPTION/COMMENTS

Sides: The apparatus shall be equipped with two (2) FRC SPECTRA LED 12V telescoping

flood lights (SPA530-Q15-SW-ON-NS-H), 15,000 lumens each, mounted on the front corners of the left and right pump panels

YES	NO	EXCEPTION/COMMENTS

Sides: The apparatus shall be equipped with **LED lighting beneath the chassis steps**, automatically activated when a cab door is opened and when the transmission is in park.

YES	NO	EXCEPTION/COMMENTS

Sides: Lighting is installed under the pump panel and rear steps, operable when the transmission is in park.

YES	NO	EXCEPTION/COMMENTS

Sides: A work light is installed to illuminate the cross lay hose bed, powered when the transmission is in park.

YES	NO	EXCEPTION/COMMENTS

Sides: LED clearance and marker, and a license plate light, along with reflectors will be mounted in accordance with federal regulations.

YES	NO	EXCEPTION/COMMENTS

Sides: LED step lights are installed to light all chassis entry steps, powered when the transmission is in park.

YES	NO	EXCEPTION/COMMENTS

COMPARTMENT LIGHTING – LED

Two vertical tube type compartment lights will be provided in each enclosed compartment, and will be controlled automatically when compartment door is opened.

YES	NO	EXCEPTION/COMMENTS

DOOR / COMPONENT WARNING LIGHT

A 2” round red warning light with flasher shall be installed in a highly visible location in the chassis cab to indicate any door or component that is not properly secured for travel in accordance with the requirements of ULC. This circuit shall include;

- All compartment doors including step compartments
- All chassis cab doors

- Telescopic lights not stowed

The light shall be interlocked with the park brake.
The light shall be clearly labelled; “DO NOT MOVE VEHICLE WHEN FLASHING “

YES	NO	EXCEPTION/COMMENTS

STEP LIGHTS FOR BODY STEPS - LED

LED step lights shall be installed to light all body work surfaces, steps, and walkways in accordance with ULC.

YES	NO	EXCEPTION/COMMENTS

TWO WAY RADIO – MOTOROLA XPR 5550

A Motorola XPR 5550 mobile radio is installed in the chassis cab, including installation of antenna and programming to customer requirements. The radio shall come complete with touch pad mic. The radio shall be wired to come on with Master Power.

YES	NO	EXCEPTION/COMMENTS

BACK UP CAMERA
There will be a camera installed at rear of the apparatus body with one monitor mounted in the chassis cab as per the fire department instruction. The camera shall automatically activate when the vehicle is placed in reverse.

YES	NO	EXCEPTION/COMMENTS

TRAFFIC ADVISOR
A Whelen TA165NF2 LED Traffic Advisor including controller, shall be installed on the rear wall of the apparatus body.

YES	NO	EXCEPTION/COMMENTS

HOSEBED LIGHTS
Compliant hose bed lighting shall be provided by Amdor LED lights installed in the hose bed cover. The lights shall be automatically activated when the cover is raised.

YES	NO	EXCEPTION/COMMENTS

ELECTRICAL

SHORE POWER OUTLETS

One (1) power bar shall be installed in the chassis cab console, connected to the Auto Eject shore power outlet, with a transfer switch to allow connection to the 2,000-watt Power Plus inverter. Five (5) standard duplex receptacles with weatherproof covers shall be installed in compartments designated by the Fire Department and connected to the Auto Eject shore power outlet. Two (2) standard duplex receptacles with weatherproof covers shall be installed on each side of the body and connected to the 2,000-watt Power Plus inverter.

YES	NO	EXCEPTION / COMMENTS

MINI-PUMPER EXTRUDED ALLUMINU BODY

The apparatus body shall be designed and constructed to provide proper load distribution, structural strength, rigidity, durability, and resistance to chassis and body flex.

The body shall be constructed using **custom-designed and engineered aluminum extrusions specifically intended for apparatus construction**, together with **3/16-inch alloy aluminum plate** for the body sides, compartments, and exterior panels. The extrusions shall form an integral structural framework for the body and compartments and shall be engineered to provide enhanced strength and rigidity.

All body panels, compartment structures, and extrusions shall be securely interlocked and **MIG or TIG welded** to provide a strong, rigid, and durable assembly. Where applicable, compartments shall be **stitched welded on the exterior side** of the compartment structure. Automotive-grade seam sealant shall be applied between the exterior welds to provide a continuous seal and prevent water, dirt, and contaminants from entering the compartment structure.

The apparatus body shall be mounted to an **aluminum square-tube subframe** using a **spring-loaded mounting system** and **UHMW plastic sills** to accommodate chassis and body flex and minimize stress transferred between the chassis and apparatus body.

All compartments shall be designed with:

- Ventilation to minimize moisture accumulation;
- Floor drains to facilitate removal of water and contaminants;
- A swept-out interior design with radiused corners and minimal obstructions to facilitate cleaning and maintenance; and
- **Full fender liners** to protect the body and compartment areas from road debris, water, salt, and other contaminants.

Compartment tops shall incorporate **formed drip-molding flanges** designed to direct water away from compartment openings and reduce the potential for water intrusion into the compartments.

The completed apparatus body shall provide a durable, weather-resistant, easily maintained structure suitable for continuous emergency-service operation in Canadian environmental and road conditions.

YES	NO	EXCEPTION / COMMENTS

REAR FENDER WELLS
The vertical trim around each rear wheel is painted to match the rest of the body.
Extruded aluminum trim shall be installed around each rear wheel and is an integral part of the body.

YES	NO	EXCEPTION / COMMENTS

PUMPHOUSE STEPS
The running boards will be made of open strut aluminum with non slip surface. Each step will be rigidly reinforced with a heavy-duty support structure. Running boards will not form any part of compartment design

YES	NO	EXCEPTION / COMMENTS

REAR STEP
The rear step will be 10 inches deep, made of open strut aluminum with non slip surface, and rigidly reinforced

YES	NO	EXCEPTION / COMMENTS

EXTRUDED RUB RAIL
A bolt on extruded aluminum rub rail extends 1-1/8" beyond the body on each side. It is an extruded aluminum channel with a grip type top edge and is separated from the body by nylon washers.

YES	NO	EXCEPTION / COMMENTS

COMPARTMENTATION

LEFT Side: The apparatus shall be equipped with full-height compartments on the front left side, located ahead of the rear wheels and extending to a height above the rear wheels.

YES	NO	EXCEPTION / COMMENTS

Left Side: The apparatus shall be equipped with full-height compartments on the rear left side, located behind the rear wheels and extending to a height above the rear wheels.

YES	NO	EXCEPTION / COMMENTS

Left Side: The apparatus shall be equipped with full-height compartments above the rear wheels on the left side of the body.

YES	NO	EXCEPTION / COMMENTS

Right Side: The apparatus shall be equipped with full-height compartments on the front right side, located ahead of the rear wheels and extending to a height above the rear wheels.

YES	NO	EXCEPTION / COMMENTS

Right Side: The apparatus shall be equipped with full-height compartments on the rear right side, located behind the rear wheels and extending to a height above the rear wheels.

YES	NO	EXCEPTION / COMMENTS

Right Side: The apparatus shall be equipped with full-height compartments above the rear wheels on the right side of the body.

YES	NO	EXCEPTION / COMMENTS

Rear: A full height compartment is installed at the rear of the unit above the rear step

YES	NO	EXCEPTION / COMMENTS

ROLLUP DOORS

The compartments shall be equipped with Amdor $_{TM}$ roll up shutter doors, custom fitted to the compartment door opening. Finish shall be natural aluminum.

YES	NO	EXCEPTION / COMMENTS

EXTRUDED ALUMINUM HANDRAILS

All railing will be 1-1/4" outer diameter, extruded aluminum non slip rib type tubing. Two (2) vertical rails will be mounted on the rear of the body, one (1) each side. One (1) handrail will be installed below the level of the hose bed.

YES	NO	EXCEPTION / COMMENTS

STEPS AT REAR OF BODY (FOLDING)

Folding steps will be installed on the front surface of the side compartments. Handrails are also installed at the front of the unit as necessary.

YES	NO	EXCEPTION / COMMENTS

STEPS AND GRAB HANDLES AT FRONT OF BODY - PUMP PANEL
Folding steps will be installed on the front surface of the side compartments. Handrails are also installed at the front of the unit as necessary.

YES	NO	EXCEPTION / COMMENTS

COMPARTMENT MATTING:
Each enclosed exterior compartment shall be equipped with black plastic interlocking tile floor matting.

SLIDING TRAY (EA) - 500-pound, lock-in, lock-out slides
Three (3) Sliding tray(s) equipped with 500-pound capacity sliding hardware with lock-in, lock-out type latches to hold in the closed and open positions are installed as directed by the Fire Department.

YES	NO	EXCEPTION / COMMENTS

ADJUSTABLE SHELF
9 Adjustable shelves equipped with aluminum unistruts are installed as directed by the Fire Department

YES	NO	EXCEPTION / COMMENTS

Pac-trac on back wall
An extrusion suited for equipment mounting is installed on the back wall of the compartment

YES	NO	EXCEPTION / COMMENTS

ADJUSTABLE HOSE DIVIDER
Two (2) Fully adjustable full length 1/4" aluminum hose bed partition(s) will be provided directly on top of the booster tank. Partition(s) will be removable for access to the booster tank.

YES	NO	EXCEPTION / COMMENTS

HOSE BED - ALUMINUM
The hose bed floor shall be constructed of aluminum channels and shall be properly spaced for ventilation. The flooring will be smooth and free from sharp edges to avoid hose damage. Floor will be removable for access to booster tank.

YES	NO	EXCEPTION / COMMENTS

ALUMINUM COVER OVER CROSSLAYS - WITH END TARPS (BLACK)

A hinged aluminum cross lay hose bed cover will be provided over the cross lays. Small tarps with velcro straps to enclose each end are provided.

YES	NO	EXCEPTION / COMMENTS

ALUMINUM COVER OVER HOSE BED WITH END TARPS - BLACK E

A hinged aluminum hose bed cover will be bolted to top body flanges. Gas struts are mounted at the front to assist in opening. Rear flaps with velcro straps will be provided on the rear of the cover to tie around the rear handrail.

YES	NO	EXCEPTION / COMMENTS

HARD SUCTION STORAGE

Suction hose storage trays shall be mounted on top of the apparatus body and shall be designed to securely accommodate the following:

- Two (2) 10-foot lengths of 6-inch hard suction hose; and
- Two (2) 10-foot lengths of 4-inch hard suction hose.

The suction hose trays shall be securely constructed and mounted to withstand normal apparatus operation and shall provide **safe and convenient access from the rear of the apparatus**.

YES	NO	EXCEPTION / COMMENTS

LADDER and PIKE POLE STORAGE

A rear-access slideway shall be provided for the storage of the apparatus ladder(s). The slideway shall securely retain the ladder(s) during vehicle operation while allowing for safe and convenient removal from the rear of the apparatus.

A dedicated storage tube shall be provided for a pike pole, with the tube positioned to allow access and removal from the rear of the apparatus.

YES	NO	EXCEPTION / COMMENTS

INSTRUMENTATION

WARNING LABEL ON PUMP OPERATOR'S PANEL

A warning label shall be installed on the Pump Operator’s Panel stating:

WARNING: Death or serious injury may occur if proper operating procedures are not followed. Operators and personnel connecting supply or discharge hoses shall be familiar with the operator’s manual, water hydraulic hazards, and component limitations.

YES	NO		EXCEPTION / COMMENTS

LINKAGE CONTROLS IN LEFT SIDE FRONT COMPARTMENT
Pump panel controls shall be located in the left side front compartment.

YES	NO	EXCEPTION / COMMENTS

INSTRUMENT PANELS
Instrument and pump panels shall be fabricated from **14-gauge 304 stainless steel with a brushed finish**.
All gauges, controls, connections, switches, inlets, and outlets shall have **colour-coded identification plates** of an enhanced style, such as Vision Mark or Innovative Controls.
Both left- and right-side pump panels shall be illuminated by **clear-lens lights** mounted under full-width polished stainless-steel shields designed to protect the lights and minimize operator glare.

YES	NO	EXCEPTION / COMMENTS

HEAT PAN-ALUMINUM
A pump heat pan fabricated from 1/8" aluminum will be provided on the underside of the pump enclosure and pump module area to act as a supplementary heating system by entrapping chassis exhaust heat during low temperature pumping operations. This pan will be attached with spring loaded pins for easy removal without tools for servicing and in warm weather.

YES	NO	EXCEPTION / COMMENTS

HEATER IN PUMP COMPARTMENT
A 30,000 BTU hot water heater is installed in the pump compartment with fan controls at the pump panel.

YES	NO	EXCEPTION / COMMENTS

Gauges
One (1) 4-inch master intake pressure gauge and one (1**)** 4-inch master discharge pressure gauge shall be provided on the pump operator's panel. Both gauges shall be dual-scale, displaying pressure in kPa and PSI.
In addition, one (1) 2-1/2-inch diameter dual-face pressure gauge, displaying kPa and PSI, shall be provided for each pump discharge. Each discharge gauge shall be individually plumbed to its corresponding discharge outlet.

YES	NO	EXCEPTION / COMMENTS

PRIMER CONTROL W/MODULE
A control is mounted on the pump panel to operate the primer pump and prime the pump and plumbing to allow drafting.

YES	NO	EXCEPTION / COMMENTS

ADDITIONAL PRIMER CONTROL
An additional control is mounted on the pump panel to prime the specified suction plumbing separately from the water pump. This minimizes cavitation when switching water supplies.

YES	NO	EXCEPTION / COMMENTS

FRC IN CONTROL GOVENOR CONTROL
An FRC Governor control is installed on the pump operator's panel to control pump pressure and engine speed. The display also shows engine data and pump inlet and outlet pressure.

YES	NO	EXCEPTION / COMMENTS

ELECTRIC WATER LEVEL GAUGE ON PUMP PANEL
A water level gauge is installed on the pump panel with four indicator lights showing quarter, half, three quarter and full tank levels. The sender has no moving parts.

YES	NO	EXCEPTION / COMMENTS

ELECTRIC FOAM LEVEL GAUGE – PUMP PANEL
A foam level gauge is installed on the pump panel with four indicator lights showing quarter, half, three quarter and full tank levels. The sender has no moving parts.

YES	NO	EXCEPTION / COMMENTS

TEST GAUGE PANEL
Connections for pump vacuum and pressure are installed on the pump panel for use when testing the pump.

YES	NO	EXCEPTION / COMMENTS

HEAT EXCHANGER CONTROL VALVE
A quarter turn valve to allow flow of water through the engine heat exchanger is mounted on the pump panel.

YES	NO	EXCEPTION / COMMENTS

PTO HOURMETER
An electric hour meter shall be mounted on the pump panel, wired to show PTO in gear hours.

YES	NO	EXCEPTION / COMMENTS

MICROPHONE COMPARTMENT
A closed compartment with door shall be provided on the pump panel for storage of the two-way radio microphone.
Wiring shall be provided from the pump panel and terminate in the console area for connection to the radio.

YES	NO	EXCEPTION / COMMENTS

SPEAKER ON PUMP PANEL
A **flush-mounted speaker** shall be installed on the pump panel for the radio system. Wiring shall be provided from the pump panel and terminate in the console area for connection to the radio. The speaker shall include a **dedicated on/off switch** accessible from the pump panel.

YES	NO	EXCEPTION / COMMENTS

PAINT EXTERIOR - IMRON ELITE
All compartment doors, removable components, flush mounted lights, drip moldings, accessories and other equipment shall be mounted on the body prior to painting, then removed for final finishing to assure paint has been applied to surfaces under all equipment and components. All exterior surfaces of the body except tread plate and polished stainless steel are painted to prevent corrosion. The body is buffed, primed with acid etching primer, epoxy primed, and painted with 3 full coats of DUPONT ELITE polyurethane enamel.

YES	NO	EXCEPTION / COMMENTS

UNDERCOAT VEHICLE
The entire cab and body after completion shall be treated with KROWN$_{TM}$ rust protection prior to leaving the factory. A certificate of application shall be provided with the delivery documents stating the application was completed by a certified Krown applicator.

YES	NO	EXCEPTION / COMMENTS

PAINT PUMP AND PLUMBING JOB COLOUR
The pump and plumbing area are painted to match the body colour.

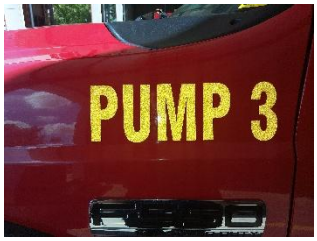
YES	NO	EXCEPTION / COMMENTS

BUFFED FINISH COMPARTMENT INTERIOR
The interior of the aluminum compartments is buffed to remove scratches and provide a finished surface.

YES	NO	EXCEPTION / COMMENTS

LETTERING
The completed apparatus shall be lettered in accordance with requirements of the Fire Department.
The lettering shall be gold and white reflective vinyl.







YES	NO	EXCEPTION / COMMENTS

REFLECTIVE STRIPE - 4" WHITE
A four-inch high white Scotchlite stripe will be provided. The stripe will be applied on a minimum of 50 percent of each side of the unit, 50 percent on the rear of the unit (unless a chevron is provided) and 25 percent on the front of the unit.

YES	NO	EXCEPTION / COMMENTS

REFLECTIVE STRIPE - RED AND YELLOW CHEVRON AT REAR
An NFPA compliant reflective chevron is applied to cover at least 50% of the rear facing vertical surface of the vehicle. This consists of alternating red and yellow reflective stripes 6" wide in a chevron pattern sloping down and away from the centerline of the vehicle at an angle of 45 degrees.

YES	NO	EXCEPTION / COMMENTS

ACCESSORIES
The following accessories and mounting brackets will be installed on this unit:

Two (2)	6" x 10' lightweight suction hose PVC suction hose with threaded pyrolite fittings
Two (2)	4" x 10' lightweight suction hose PVC suction hose with threaded pyrolite fittings
Two (2)	Single Head Hydrant and Spanner Wrench Set

SOUTH RIVER – MACHAR FIRE DEPARTMENT – Mini-PUMPER

One (1)	4" floating strainer, threaded pyrolite
One (1)	6" floating strainer, threaded pyrolite
Two (2)	Pike poles, fiberglass handle - 8' long
One (1)	PAC IronsLok HD with 30-inch Halligan and Flat Head Axe
One (1)	24' 3 section aluminum extension ladder, PEL3-24
One (1)	12' aluminum roof ladder, Alco Lite PRL-12 series
One (1)	10' aluminum folding attic ladder Alco Lite FL-10
Four (4)	SCBA mounting bracket compartment mount only
Two (2)	Cast aluminum wheel chock approved for use on tires up to 44" diameter.
Two (2)	Horizontal bracket for folding wheel chock.
One (1)	CET PFP-23HPVGD-2D portable pump
Eight (8)	1.75" x 50' Mercedes Aqua Flo Plus NPSH (4 Green and 4 Yellow)
One (1)	A TFT A remote control 1250 GPM monitor with remote control riser, stream shaper and Master Stream RC Automatic Master Stream Nozzle, equipped with a wireless remote control.