



**The Corporation of the Township of Douro-Dummer
Fire Department**

Request for Tender

FD-2021-01 Pumper Fire Apparatus

Tender Closing

Date: Monday, July 12, 2021

Time: 12:00 p.m. (noon) local time

**Location: The Township of Douro-Dummer
894 South Street
Warsaw, Ontario K0L 3A0**

Attn: Chuck Pedersen, Fire Chief

Late Bids Will Not Be Accepted.

The Corporation of the Township of Douro-Dummer reserves the right to accept or reject all or part of any Bid and also reserves the right to accept other than the lowest Bid and to cancel this Call for Bids at any time.

"Part A" Information to Bidders

1. Purpose

The Township of Douro-Dummer is requesting a Request for Tender for the supply and delivery of one (1) pumper fire apparatus.

2. Tender Copies

Tenders will be received by:

The Corporation of the Township of Douro-Dummer
894 South Street
Warsaw, Ontario K0L 3A0

Attention: Chuck Pedersen, Fire Chief

One (1) original copy and one (1) photocopy of the Tender properly signed and sealed shall arrive at the office of the Township of Douro-Dummer, 894 South Street, Warsaw, Ontario K0L 3A0.

The following schedule must be strictly adhered to. Only those firms who can commit to meeting this schedule should submit Tenders.

3. Tender Closing

Tenders must be delivered to the above address before 12:00 p.m. Noon Local Time, Monday, July 12, 2021. Time registered on the Township of Douro-Dummer reception telephone clock will be considered the official time when determining exact time of submission.

4. Tender Award

It is understood that any reference herein to Lowest Bidder or Lowest RFT is replaced by Highest Overall Scored Proponent. Tender award shall be made only upon the basis of the highest overall scored proponent in the evaluation process.

5. Evaluation Criteria

Tenders shall be evaluated based on:

- A) Company Profile/Service/Support and References
- B) Proponents ability to perform Contract
- C) Purchase Price
- D) Product Review

Evaluation of each Tender relative to the others shall give due consideration to:

	Weight
A) Company Profile/Service/Support and References	25%
B) Proponents capability to perform this Contract shall be based on the firm's prior experience in supplying and providing training for the proposed equipment, delivery, time, safety features and warranty provided	25%
C) Purchase Price	25%
D) Product review, and any additional value-added services included in the Tender at no additional cost	25%

Method of Evaluating Cost

$$\frac{\text{cost of lowest proper Tender}}{\text{cost of Tender being evaluated}} \times \text{full weight of cost criteria}$$

10	Excellent	Exceeds the requirements of the criterion in superlative beneficial ways/very desirable.
9	Very Good	Exceeds the requirements of the criterion in ways which are beneficial to the Township's needs
8	Good	Exceeds the requirements of the criterion but in a manner which is not completely beneficial to the Township's needs
7		Fully meets all requirements of the criterion.
6	Average	Adequately meets most of the requirements of the criterion. May be lacking in some areas which are not critical.
5		Addresses most, but not all, of the requirements of the criterion to minimal acceptable level. May be lacking in some areas which are not critical.
4	Poor	Barely meets most of the requirements of the criterion to the minimum acceptable level. May be lacking in some areas which are not critical.
3		Minimally addresses some, but not all, of the requirements of the criterion. Lacking in critical areas.
2	Very Poor	Very Poor to Unsatisfactory
1	Unsatisfactory	Does not satisfy the requirements of the criterion in any manner.

Each Bidder is asked to submit one (1) original and one (1) copy of their Tender.

6. Inquiry

Any questions regarding this Tender should be directed to:

Chuck Pedersen
Fire Chief
Township of Douro-Dummer
(705) 652-8392 x 207
cpedersen@dourodummer.on.ca

7. Amendments to "Standard Terms and Conditions"

Where Amendments to the Township's "Standard Terms and Conditions" are contained herein, it should be noted that these Amendments supersede any of the foregoing Terms and Conditions.

8. Multiple Tenders

Where a proponent believes their company provides more than one suitable option that meets the specification provided, then more than one Tender is acceptable, but must be submitted entirely separate, as if it was the only one being submitted.

9. Documents to Include with the Bid

Listed on Part "D" Bid Form

"Part B" Standard Terms and Conditions

1. Definitions

Bid	The document issued by the Township in response to which Quotations/Tenders/ RFPs are invited for the performance of the work or supply of equipment.
Bidder	A person(s), firm(s) or corporation(s) who has submitted a bid.
Company	The person(s), firm(s) or corporation(s) to whom the Township has awarded the contract.
Contract	The purchase order authorizing the company to do the work, the Quotation/Tender/Tender, the bonds or security (if any), the company's Quotation/Tender/Tender, and change notices, appendices, and addenda (if any), Formal contract.
Township	The Township of Douro-Dummer, its successors and assigns.
Equipment	The materials, machinery, assemblies, instruments, devices or articles as the case may be, or components thereof, which are the subject of the contract.
Subcontractor	A person(s), firm(s) or corporation(s) having a contract with the company for any part of the work.
Work	All materials, equipment fixtures, services, supplies, and acts required to be done, furnished and/or performed by the company.

2. Bid Closing Time

One (1) original and one (1) copy of the bid document, or as otherwise requested herein, properly signed and sealed and clearly marked as to its contents, shall arrive at the office of the Fire Chief of the Township of Douro-Dummer, 894 South Street, Warsaw, Ontario, K0L 3A0 no later than the specified time and closing date indicated on the cover page of the document. Late bids shall not be accepted; however, they shall be time and date stamped and returned to the Bidder unopened.

The Township of Douro-Dummer reception telephone clock will be considered the official time when determining exact time of submission.

3. Bid Requirements

Bidders are required to conform to the conditions listed below and those failing to do so may be subject to disqualification.

- a) Bids must be submitted on the bid form supplied by the Township. Bid submissions must not be restricted by a statement added to the bid form or by a covering letter, or by alterations to the bid form supplied unless otherwise provided in the bid document.
- b) Bid submissions shall consist of Part "D" Bid Form and all other sections and requirements as requested within the bid document. See Part "D" Bid Form for all requirements requested within the bid document.
- c) The Bid Form shall be signed in the space(s) provided by a duly authorized official of the entity bidding. If a joint Bid is submitted, it shall be signed on behalf of each of the Bidders and if the signing authority for both Bidders is vested in one individual, he/she shall sign separately on their behalf. Signatures on behalf of non-incorporated bodies or by individuals shall be witnessed. In the case of an incorporated Company, the corporate seal should be affixed to the Bid Form adjacent to the authorized signature.
- d) Bids must be legible, written in ink or typewritten. Erasures, over-writing or strikeouts must be initialed by the person signing on behalf of the Company.
- e) Adjustments by telephone, facsimile (Fax), e-mail or letter to a bid already submitted will not be considered. A bidder that wants to adjust their submitted bid must first withdraw the bid and/or supersede it with a later bid submission prior to the specified bid closing time.
- f) Bids must be submitted in individually sealed envelopes and must clearly identify the name of the company, address of company, and Tender number on the outside of the envelope. Quotation/Tenders/RFP's received after closing time specified in the bid document will not be considered.

Faxed Bid Submissions are not acceptable

- g) Delivery of the Bid submission through a Courier Service shall be the responsibility of the Bidder and shall result in the submission being rejected where:
 - a. Bid submission is delivered to a location other than which is stated on the submission and fails to be delivered to the Township of Douro-Dummer's Office of the Fire Chief prior to the closing date and time; and/or
 - b. Bid submission which is enclosed in the Courier Envelope that does not state, "Bid Document Enclosed" and is not removed from the Courier's Envelope prior to the closing date and time; and/or
 - c. Bid submission is delivered later than the closing date and time.

- h) Each item in the bid document shall be a reasonable price for such item. Bids that contain prices which appear to be unbalanced as to affect adversely the interest of the Township may be rejected. The Township will be the sole judge in this matter.

4. Bidders Statement of Understanding

It is understood that the Bidder has carefully examined all of the bid documents and has carefully examined the Work to be performed under the Contract if awarded. The Bidder also understands and accepts the said bid documents, and for the prices set forth in the Bid, hereby offers to furnish all labour, machinery, tools, apparatus and other means of implementation, and materials to complete the terms and conditions and requirements in strict accordance with the bid documents.

None of the conditions contained in the Bidder's (seller's) standard or general (printed) conditions of sale shall be of any effect unless explicitly agreed to by the Township as set forth or specifically referred to therein.

The Bidder declares that their submission is not made in connection with any other bidder submitting an offer for the same commodity or commodities, and is in all respects fair and without collusion and fraud.

The contract shall be governed and interpreted in accordance with the laws of the Province of Ontario.

It is the intent of this specification to describe a pumper fire apparatus for the purpose of pumper operations and front-line water supply. All parts not specifically mentioned, which are necessary in order to provide a complete assembly, shall be included in the bid and shall conform in strength, quality of material and workmanship to what is usually provided by the trade in general.

Any units not conforming to the specifications as outlined in Part "C" - Specifications will be rejected and it will be the responsibility of the supplier to conform to the requirements unless deviations have been cited by the bidder and acceptance made on that basis, such acceptance shall be at the Township of Douro-Dummer's discretion.

5. Clarification of Bid Documents

No officer, agent or employee of the Township is authorized to alter orally any portion of these documents. During the period prior to submission of Quotations/Tenders/ Tenders, alterations will be issued to Bidders as written addenda. The Bidder shall list in its Bid all addenda that were considered when its Quotation/Tender/RFP's was prepared.

The Township will issue all written addendum to the bid documents to each bidder or prospective Bidder via e-mail, Fax or electronic posting.

Bidders are required to confirm receipt of each addendum. Although the Township will make every reasonable effort to ensure that each Bidder receives all addenda issued, it is each Bidder's ultimate responsibility to ensure all addenda have been received.

6. Insurance and Workplace Safety Insurance Board

The successful bidder shall deliver a certified copy of the Firm's Public Liability and Property Damage Insurance, and where applicable the bidder shall carry standard automobile and non-owned automobile liability insurance Policy for the works, within ten (10) working days of receiving the Acceptance Notice. Coverage shall be at least \$2,000,000.00 per incident, with the Township of Douro-Dummer named as insured. Additional coverage may be required.

See Part "A" Information to Bidders, which form part of this bid document for additional requirements.

The successful bidder will be required to submit proof of Workplace Safety Insurance Board Coverage, within ten (10) working days of receiving the Acceptance Notice and shall provide additional certificates as often as is deemed necessary by the Township during the term of the contract to ensure continued good standing with the Workplace Safety & Insurance Board.

or

The successful bidder shall provide proof to the Township from the Workplace Safety & Insurance Board that the bidder does not require Workplace Safety & Insurance Board Insurance. If the successful bidder changes its status with the Workplace Safety & Insurance Board during the term of the contract such that coverage is required, the successful bidder shall immediately provide the Township with the W.S.I.B. Clearance Certificate.

Failure to provide such proof shall result in cancellation of the Contract.

7. Proof of Ability

The Bidder may be required to show, in terms of experience and facilities, evidence of its ability, as well as that of any proposed subcontractor, to perform the work by the specified delivery date.

8. Pricing Requirement

Prices shall be in Canadian Funds, quoted separately for each item stipulated F.O.B. the point specified therein.

All prices bid shall include applicable taxes, customs duty, excise tax, freight, insurance and all other charges of every kind attributable to the work. Harmonized Sales Tax shall be shown as extra, unless otherwise specified. If the Bidder intends to manufacture or fabricate any part of

the work outside of Canada, it shall arrange its shipping procedures so that its agent or representative in Canada is the Importer of record for customs purposes.

Except as may be provided in Part "C" Specifications, in the Quotation/Tender/RFP's document, the prices bid shall not be subject to adjustment for any cost of the work to the Company.

In the event of any discrepancy between the unit price and the extension, the unit price shall govern.

9. Terms of Payment

Unless progress payments or any alternate payment terms are specified in the contract, the contract price may be invoiced after delivery and shall be payable 30 days from receipt of invoice. The effect of any alternative payment terms, stated clearly in the bid submission will be considered in the evaluation of bids. The Township shall have the right to withhold from any sum otherwise payable to the Company such amount as may be sufficient to remedy any defect or deficiency in the work, pending correction of the same.

10. Delivery

Time shall be material and of the essence of the contract. Each day past 30 days, the vendor will pay the Township a sum of \$250 per day penalty for not fulfilling the contract as written.

Any required training will be included on the delivery day.

All bids shall be F.O.B. Destination, Warsaw, Ontario unless otherwise noted in the bid document. The Company shall be responsible for arranging its work so that completion shall be as specified in the contract.

11. Patents and Copyrights

The Company shall at its expense, defend all claims, actions or proceedings against the Township based on any allegations that the work or any part of the work constitutes an infringement of any patent, copyright or other proprietary right and shall pay to the Township all costs, damages, charges and expenses, including its legal fees.

The Company shall pay all royalties and patent license fees required for the work.

If the work or any part thereof is in any action or proceeding held to constitute an infringement, the Company shall forthwith either secure for the Township the right to continue using the work, or shall at the Company's expense, replace the infringing items with non-infringing work or modify them so that the work no longer infringes.

12. Assignment

The Company shall not assign the contract or any portion thereof without the prior written consent of the Township.

13. Occupational Health and Safety Act

The successful bidder, for purposes of the Ontario Occupational Health and Safety Act, shall be designated as the Constructor for this project and shall assume all of the responsibilities of the Constructor as set out in that Act and its regulations. The foregoing shall apply notwithstanding that the successful bidder has been referred to as the 'Company' in this and any other related document.

The Company acknowledges that they have read and understood the Occupational Health and Safety Act together with the Township's Health and Safety Policies and Procedures.

The Company covenants and agrees to observe strictly and faithfully the provisions of the said Occupational Health and Safety Act and all regulations and rules promulgated there under together with the Township's Health and Safety Policies and Procedures.

The Company agrees to indemnify and save the Township harmless for damages or fines arising from any breach or breaches of the said Occupational Health and Safety Act and/or the Township's Health and Safety Policies and Procedures.

The Company agrees to assume full responsibility for the enforcement of the said Occupational Health and Safety Act and the Township's Health and Safety Policies and Procedures and to ensure compliance therewith.

The Company further acknowledges and agrees that any breach or breaches of the Occupational Health and Safety Act and/or the Township's Health and Safety Policies and Procedures whether by the Company or any of its sub-contractors may result in the Company and/or sub-contractor being removed from the site and in the immediate termination of this contract herein and the forfeiture of all sums owing to the Company by the Township.

The Company shall allow access to the work site on demand to representatives of the Township to inspect work sites to ensure compliance with the Contract and the Township's Policies and Procedures.

The Company agrees that any damages or fines that may be assessed against the Township by reason of a breach or breaches of the Occupational Health and Safety Act by the Company or any of its sub-contractors will entitle the Township to set-off the damages so assessed against any monies that the Township may from time to time owe the Company under this contract or under any other contract whatsoever.

Where any portion of the work or services in this Contract is contracted to a sub-contractor, the Company agrees that the provisions of this section will apply to the sub-contractor and the Company will enforce said provisions.

The Company shall provide a list of all controlled hazardous materials or products containing hazardous materials, all physical agents or devices or equipment producing or omitting physical agents and any substance, compound, product or physical agent that is deemed to be or contains a designated substance in accordance with the Workplace Hazardous Materials Information System (WHMIS) as defined under the Ontario Occupational Health & Safety Act and shall provide appropriate Material Health & Safety Data sheets for these substances used for the performance of the required work, all prior to the performance of said work.

Where hazardous materials, physical agents and/or designated substances are used in the performance of the required work, the Company shall ensure that the requirements of the Ontario Occupational Health & Safety Act and associated regulations are complied with.

The Township reserves the right to cancel any contract for non-compliance with the terms set out herein, health and safety regulations, the Environmental Protection Act, associated regulations and other applicable legislation.

14. Laws, Regulations, Permits, Fees and Licenses

The Company shall comply with relevant federal, provincial and municipal statutes, regulations and by-laws pertaining to the work and its performance. The Company shall be responsible for ensuring compliance by its suppliers and subcontractors.

The contract shall be governed by and interpreted in accordance with the laws of the Province of Ontario.

The Company shall pay for all permits, licenses and fees, and give all notices and comply with all by-laws and regulations of the Township and any other governing body.

15. Substitutes and Alternates

Unless qualified by the provision "No Substitute", the use of the name of a manufacturer, brand, make or catalogue designation in specifying an item does not restrict bidders to that manufacturer, brand, make or catalogue designation identification. This is used simply to indicate the character, quality and/or performance of the goods and/or services desired, but the goods and/or services on which bids are submitted must be of such character, quality and/or performance that it will serve the purpose for which it is to be used as well as that specified. In submitting a bid on goods and/or services other than as specified, the bidder must furnish complete data and identification with respect to the alternate goods and/or services they propose to furnish.

Consideration will be given to bids submitted on alternate goods and/or services to the extent that such action is deemed to serve the best interests of the Township. If the bidder does not indicate that the goods and/or services they propose to furnish is other than specified, it will be construed to mean that the bidder proposes to furnish the exact goods and/or services as described in the bid document.

16. Inspections and tests:

Throughout the vehicle manufacturing process, the contracting authority reserves the right to visit the supplier's facilities to make inspections as deemed necessary. There will be three anticipated visits, one being a pre-build visit, second being a pre-paint and chassis inspection and third being final pre-delivery inspection. Out of pocket basic travel expenses, including items such as mileage, air fare, hotel, meals will be included in the Tender for 1 (one) person, but excludes wages.

The defects or faults found during those visits shall be corrected at the successful bidder's expense and to the contracting authority's satisfaction.

The Township reserves the right to send an independent inspector of its choice.

17. Samples

Samples when required must be submitted strictly in accordance with instructions. If samples are requested subsequent to the opening of the bid, they shall be delivered within three (3) working days following request, unless additional time is granted. Samples must be submitted free of charge and will be returned at the bidder's expense, if so requested, provided they have not been destroyed by tests, or provided they are not required for comparison purposes.

The acceptance of samples by the Township shall be at its sole discretion and any such acceptance shall in no way be construed to imply relief of the Company from its obligations under the contract.

18. Quotation/Tender/RFP'S Procedures

Quotation/Tender/RFP'S will be called, received, evaluated, accepted and processed in accordance with the Township's Purchasing Policies.

19. Contract Award

The Township reserves the right to award by item, or part thereof, groups of items, or parts thereof, or all items of the bid, and to award contracts to one or more bidders submitting identical Bids as to price; to accept or reject any Bids in whole or in part; to waive irregularities and omissions. The Township also reserves the right to enter into negotiations with the lowest compliant bidder if the price bid is over the budgeted amount of the project. Should the Township be unable to reach an agreement with the lowest compliant bidder, the

Township reserves the right to enter into negotiations with the next lowest compliant bidder, or to cancel the call. If in so doing, the best interests of the Township will be served. No liability shall accrue to the Township for its decision in this regard.

The lowest or any bid may not necessarily be accepted as the Township of Douro-Dummer reserves the right to reject any or all bids. Bids shall be irrevocable for 90 days after the official closing time and the Township may at any time within that period without notice, accept a Bid whether any other Bid has been previously accepted or not.

All Bids are prepared at the sole risk and cost of the bidders. No payments shall be made to any bidder regarding the preparation and submission of Bids.

Award of this contract is subject to appropriate funding acceptable to the Township.

The Notice of Award to the successful bidder shall constitute notice of acceptance of contract. This acceptance shall be conditional on the bidder providing all documentation, security and certifications as required by the Bid Document within ten (10) working days of the date that the notice of award is placed in the mail or delivered to the bidder. The bidder to whom the contract is awarded will be notified by letter and/or email with Council's resolution.

20. Contract Cancellation

The Township shall have the right, which may be exercised from time to time to cancel any uncompleted or unperformed portion of the work or part thereof. In the event of such cancellation, the Township and the Company shall negotiate a settlement.

- a) If the Company; commits any act of bankruptcy; or if a receiver is appointed on account of its insolvency or in respect of any of its property; or if the Company makes a general assignment for the benefit of its creditors; then, in any such case, the Township may, without notice; terminate the contract.

- b) If the Company; fails to comply with any request, instruction or order of the Township; or fails to pay its accounts; or fails to comply with or persistently disregards statutes, regulations, by-laws or directives of relevant authorities relating to the work; or fails to prosecute the work with the skill and diligence; or assigns or sublets the contract or any portion thereof without the Township's written consent; or refuses to correct defective work; or is otherwise in default in carrying out its part of any of the terms, conditions and obligations of the contract, then, in any such case, the Township may, upon expiration of ten (10) days from the date of written notice to the Company, terminate the contract.

c) Any termination of the contract by the Township, as aforesaid, shall be without prejudice to any other rights or remedies the Township may have.

d) If the Township terminates the contract, it is entitled to:

- i. Take possession of all of the work in progress and finish the work by whatever means the Township may deem appropriate under the circumstances;
- ii. Withhold any further payments to the Company until its liability to the Township is ascertained;
- iii. Recover from the Company loss, damage and expense incurred by the Township by reason of the Company's default (which may be deducted from any monies due or becoming due to the Company, any balance to be paid by the Company to the Township).

The Township shall not be liable to the Company for loss of anticipated profit on the cancelled portion or portions of the work.

21. Disclosure

The names of bidders and total bid prices will be made available at the public Quotation/Tender opening. After the Quotation/Tender opening, requests may be submitted to the Township for the results, and only the names of bidders and total bid prices as read out at the Quotation/Tender opening will be given in the reply.

Request for Proposals are formally opened in public and only the name of the bidders submitting responses to the Request for Proposals will be read. Details of the RFP's or any financial information will not be publicly disclosed at the opening.

22. Municipal Freedom of Information and Protection of Privacy Act

The Municipal Freedom of Information and Protection of Privacy Act (Ontario), applies to records in the custody or control of the Township, and includes any information provided by Bidders in connection with this Tender. Such information may be subject to requests for access under that Act, and can only be withheld from disclosure in specific circumstances. If you have any questions about the collection, use or disclosure of this information by the Township of Douro-Dummer, please contact the Clerk Township of Douro-Dummer, 894 South Street, Warsaw, Ontario K0L 3A0 (705-652-8392).

23. Complaints

Any complaint on the process and procedures as outlined in the Township's Purchasing Bylaw (as amended) to define the procedures with respect to the procurement of goods and services by the Corporation of the Township of Douro-Dummer shall be in writing and shall be submitted to Elana Arthurs, C.A.O. for review and response.

A complaint on the process and procedures related to the award of an RFP, Tender or quotation must be submitted within seven (7) working days of the date of the award.

24. Accessibility

The Township of Douro-Dummer is committed to the accessibility principles of preventing and removing barriers in accessing goods and services for people with disabilities and is bound by the Standards under the Accessibility for Ontarians with Disabilities Act, 2005 as may be amended from time to time.

Regulations enacted under the Act apply to every designated public sector organization and other third parties that provide goods and services to the members of the public.

The consultant/contractor, and all sub-contractors hired by the consultant/contractor in the completion of its work, will meet or exceed compliance with all applicable regulations under the Accessibility for Ontarians with Disabilities Act, 2005 as may be amended from time to time.

It is the consultant/contractor's responsibility to ensure they are fully aware of, and meet all requirements under the Act. A Declaration of Accessibility Compliance will be required by the successful bidder.

"Part C" Specifications

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
Section 2: Chassis Specification				
2.	The vehicle chassis shall be a 2021 or 2022 (if available at time of build) Freightliner, M2-106, 4X2, 4 doors, fire service specification with chrome trim package. The chassis shall be put into service and operate in the country of Canada (CAN) and shall meet the regulatory requirements of the same. The entire chassis specifications shall be provided with bid. The specific chassis build will be done by the winning bid, on-staff engineer. Section 2 provides an overview of what items are preferred and the Township will be consulted in specific chassis build prior to ordering. (No Substitute)			
2.1.	GROSS VEHICLE WEIGHT RATING (GVWR)			
2.1.1.	The gross vehicle weight rating (GVWR) of the chassis shall be 40,000 pounds.			
2.2.	WHEEL BASE (WB) AND CAB TO AXLE (CA)			
	<ul style="list-style-type: none"> ▪ The chassis wheel base shall be determined by on-staff engineer. ▪ The chassis cab to axle (CA) shall be determined by on-staff engineer. 			
2.3.	FRAME			
2.3.1.	The frame shall be constructed of (120,000 PSI) 11/32"x 3.5"x 10-15/16" high strength low alloy steel running parallel rails.			
2.4.	DIESEL ENGINE EPA 2010 / CARB EMISSION CERTIFICATION			
2.4.1.	The chassis engine shall be six (6) cylinders Cummins L9. The engine shall offer a rating of 350 and 1000 ft lbs of torque. The engine shall include the following components: <ul style="list-style-type: none"> ▪ Mechanical air inlet restriction gauge ▪ Automatic high idle speed control ▪ 12V DC MT-38 starter motor ▪ Cartridge oil filter ▪ Engine mounted fuel filter 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.5.	AUXILIARY BRAKE SYSTEM			
2.5.1.	Cummins exhaust brake integral with variable geometry turbo.			
2.6.	RADIATOR			
2.6.1.	The radiator shall be equipped with an overflow tank, a visual level indicator and high-quality rubber hoses.			
2.6.2.	Bug screen located behind grill.			
2.7.	The coolant shall be certified down to a temperature of -40° C (centigrade).			
2.8.	AUTOMATIC TRANSMISSION			
2.8.1.	The transmission shall be an Allison 3000 EVS_P. It shall have 5 speeds, fire truck application, lock-up in 4 th speed and PTO provision.			
2.9.	TOP SPEED			
2.9.1.	The top speed of the vehicle shall be 120 km/h.			
2.10.	FRONT AXLE			
2.10.1.	The front axle shall be a Detroit DA-F-14.7-3. The weight capacity for the axle shall be rated to 14,700 pounds.			
2.11.	FRONT SUSPENSION AND SHOCK ABSORBERS			
2.11.1.	The front suspension shall include 14,600 pounds taper leafs springs and intensive use shock absorbers.			
2.12.	FRONT TIRES AND WHEELS			
2.12.1.	The two (2) front tires shall be Michelin XZE 12R22.5, 16 plies mounted on 22.5"x 8.25" factory aluminum wheels.			
2.13.	REAR AXLE			
2.13.1.	The rear axle shall be a Meritor RS-26-185. The weight capacity for the axle shall be rated to 26,000 pounds.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.14.	REAR SUSPENSION AND SHOCK ABSORBERS			
2.14.1.	The rear suspension shall include 27,000 pounds flat leaf springs with helper and radius rod for fire/emergency service and intensive use shock absorbers.			
2.15.	REAR TIRES AND WHEELS			
2.15.1.	The four (4) rear tires shall be Michelin XDN2 12R22.5, 16 plies mounted on 22.5"x 8.25" factory aluminum wheels			
2.15.2.	OnSpot chain system will be installed for specific vehicle and will not affect ground clearance when stowed			
2.16.	TIRE PRESSURE INDICATOR			
2.16.1.	Each tire shall be equipped with tire pressure indicator. The indicator shall turn green when the tire is properly inflated and shall turn red when tire pressure 10% from optimal pressure.			
2.17.	BRAKE SYSTEM			
2.17.1.	AA Wabco 4S/4M ABS air brake system with traction control and enhanced stability control shall be provided. The ABS system shall have an electronic microprocessor. Each wheel shall be controlled individually.			
2.18.	AIR BRAKE SYSTEM COMPONENTS			
	<ul style="list-style-type: none"> ▪ Brake chambers, spring ▪ Slack adjusters front automatic ▪ Slack adjusters rear automatic ▪ Parking brake ▪ Drain valve ▪ Gauge air pressure ▪ Security valve below 80 PSI for air accessories ▪ The park brake shall be designed for intensive use and shall engage via mechanical spring force ▪ Front and rear brakes shall be equipped with automatic slack adjusters ▪ Air pressure gauge ▪ 80 PSI security valve for air accessories ▪ Air lines shall be made of colour coded reinforced nylon 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.18.1	All air brake components will be relocated as necessary to provide optimal ground clearance – tanks, dryer, etc.			
2.19.	AUTOMATIC DRAIN VALVE			
2.19.1.	One (1) Bendix DV-2 heated automatic drain valve shall be installed.			
2.20.	AIR COMPRESSOR			
2.20.1.	The air brake system shall be equipped with one (1) Cummins 18.7 CFM air compressor with air tanks drain valves.			
2.21.	AIR DRYER			
2.21.1.	The brake system shall include one (1) heated Bendix AD-9 air dryer.			
2.22.	FRONT AIR BRAKES			
2.22.1.	The front air brakes shall have fire and emergency severe service linings, 16.5" x 5" S-Cam type with brake chamber and dust shield.			
2.23.	REAR AIR BRAKES			
2.23.1.	The rear air brakes shall have fire and emergency severe service linings, be 16.5" x 7" S-Cam type with brake chamber and dust shield.			
2.24.	STEERING AND POWER-STEERING			
2.24.1.	The cab shall include an 18" 4 spoke tilting and telescopic steering wheel. The hydraulic power steering pump shall be a TRW-TAS-85.			
2.25.	EXHAUST SYSTEM			
2.25.1.	The cab shall include single, horizontal, aluminized steel, right side mounted exhaust system with tip in front of rear wheels. The body shall be protected by 1/8" aluminum checker-plate to prevent heat exposure.			
2.25.2.	There shall be one (1) control for regeneration inhibit installed on dash board.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.26.	<p>STANDARD 12 VOLTS ELECTRICAL SYSTEM</p> <ul style="list-style-type: none"> ▪ Electrical fuse, SAE ▪ The halogens headlights shall be long lasting and equipped with the (DRL) feature ▪ Two (2) single electric horn ▪ Parking light ▪ Five (5) LED cab marker lamps on top face of cab ▪ Dome lamp activated by door opening ▪ Windshield wipers system with intermittent control ▪ Light in cab when ignition is on ▪ Heater ▪ Air-conditioning system ▪ 12 Volts outlet on dash board 			
2.27.	<p>ALTERNATOR</p> <p>2.27.1. The charging system shall include a LN 12 volts 270-amp alternator with integrated regulator.</p>			
2.28.	<p>BATTERY SYSTEM</p> <p>2.28.1. Under cab mounted batteries.</p>			
	<p>2.28.2. The main batteries cut-off switch will be a rocker switch type. The switch will be mounted on dash.</p>			
2.29.	<p>FUEL TANK</p> <p>2.29.1. There shall be one (1) 50 U.S gallon (189 litres) fuel tank mounted under the cab on right side.</p> <p>2.29.2. There shall be one (1) 6-gallon diesel exhaust fluid tank located under cab.</p>			
2.30.	<p>ALUMINUM CAB STEPS</p> <p>2.30.1. The original cab steps on both sides of cab shall be removed and replace by custom 3003-H22 tread plate monocoque steps. The steps will be black in colour and the risers will be bright checker plate finish. The steps shall meet CAN/ULC-S515-13.</p> <p>2.30.2. There shall be an electric 1" booster reel installed in the RH side cab Step. Reel shall be supply with 100' of 1" booster hose. A 1" valve shall be supply and controlled on pump panel via a push-pull control. There shall be an automatic drain on the lowest point.</p>			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.30.3.	There shall be an air blow out system to purge reel after use. A 1 1/2" quarter turn valve shall be located beside the reel and connected to truck air tank. Check valve shall be supply to avoid water to run into the truck air system.			
2.31.	FRONT BUMPER AND GRILLE <ul style="list-style-type: none"> ▪ A polished steel front bumper shall be provided. ▪ A chromed plastic grille shall be provided. 			
2.32.	FRONT BUMPER TOW HOOKS			
2.32.1.	Two painted tow hooks shall be installed at the front of each frame rail.			
2.33.	DOOR GLASS AND WINDSHIELD			
2.33.1.	The glass utilized for doors and windshield shall be shall include standard automotive tint. The doors windows shall be power operated			
2.34.	CAB INTERIOR <ul style="list-style-type: none"> ▪ Standard gray vinyl interior ▪ Moulded door panel with high quality inserts ▪ Interior grab handles ▪ Doors activated central dome light ▪ Insulated black vinyl floor mats ▪ Two (2) Sun visors ▪ Console overhead ▪ LH/RH door activated dome lights, dual reading lights and LH and RH door mounted courtesy lights ▪ Driver and passenger side sun visor ▪ Opal gray vinyl interior ▪ Moulded door panel with upper vinyl inserts ▪ Heater/ defroster and air conditioning ▪ In dash storage bin ▪ Two (2) cup holders LH and RH Dash ▪ Two (2) 12V power supply, dual 2.1 Amp USB charger in dash, one hooked to 12V charging system and the other hooked to shore power and labelled accordingly 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.35.	DRIVER SEAT			
2.35.1.	The driver seat shall be a factory 911 model. It shall be equipped with air suspension, high back with integral headrest, red three-point shoulder harness with lap belt and NFPA 1901-2009 compliant sensor.			
2.36.	OFFICER SEAT			
2.36.1.	The officer seat shall be a factory SCBA model non-suspension seat with easy release tether for pack release. It shall be equipped with a high back with integral headrest, red three-point shoulder harness with lap belt and NFPA 1901-2009 compliant sensor.			
2.37.	PASSENGERS' SEAT			
2.37.1.	Three (3) passengers' seats shall be a factory SCBA model non-suspension seat with easy release tether for pack release. It shall be equipped with a high back with integral headrest, red three-point shoulder harness with lap belt and NFPA 1901-2009 compliant sensor.			
2.38.	MIRRORS			
2.38.1.	Two (2) dual West Coast bright finish heated mirrors with LH and RH remote operated from driver's position, shall be supplied. Two (2) 8" bright finish convex mirrors shall be mounted under primary mirrors.			
2.39.	AIR HORN			
2.39.1.	The chassis shall include (2) 25" Grover Stutter tone connected to air system and located on each side of the engine hood. The air horn activation shall be accomplished by the steering wheel horn button for the driver and a black momentary push button on the switch panel.			
2.40.	EMBER SEPARATOR			
2.40.1.	The engine air intake system shall include an ember separator air intake filter as per NFPA latest edition.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
2.41.	CAB SUSPENSION			
2.41.1.	The cab suspension shall be air type suspension.			
2.42.	FRONT CAB STORAGE BOX			
2.42.1.	The vehicle shall be equipped with a storage box (center console) located between the two front seats.			
2.42.2.	The storage box shall include a compartment equipped with hinged top lid for documents storage. Design will be approved by the Township prior to construction and may include shore power charging accessories.			
2.42.3.	The storage box shall be made of aluminium and shall be painted with anti scratch black Zolatone type coating. The product shall be applied in four steps. Sanding and cleaning, base primer, first monochrome layer and finishing layer to give a camouflage aspect that will dissimulate any scratches.			
2.43.	INSTRUMENTATION			
2.43.1.	Instrumentation and controls shall be mounted in the driving compartment and shall be identified and visible to the driver while seated as follows: <ul style="list-style-type: none"> ▪ An engine hour meter is required ▪ Air cleaner restriction gauge ▪ Speedometer ▪ Tachometer ▪ Odometer ▪ Oil pressure indicator or gauge ▪ Coolant temperature indicator or gauge ▪ Automatic transmission temperature indicator or gauge, if applicable ▪ Voltmeter ▪ Hazard indicator light ▪ Air pressure gauges ▪ Turn signal control and indicator lights ▪ Headlight/DOT light switch ▪ High beam headlight switch and indicator ▪ Fuel level gauge(s) ▪ Master ignition switch ▪ Heater/defroster controls ▪ Warning lights and siren switches ▪ Master electrical load switch ▪ «Battery on» indicator light 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
	<ul style="list-style-type: none"> ▪ Windshield wipers and windshield washer control ▪ Pump Engaged ▪ Height of vehicle sign ▪ Maximum 5 personnel ▪ OnSpot switch with max speed for engagement and max overall speed labels 			
SECTION 3: PUMP SYSTEM				
3.1	Waterous Pump CSC20 1050 IGPM (5000 lpm) SINGLE STAGE (no substitute)			
3.1.1.	The pump shall be Waterous CSC20 midship type single stage.			
3.1.2.	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 liters per minute, NFPA-1901 rated performance.			
3.1.3.	The pump and vehicle shall be ULC (Underwriters Laboratories of Canada) approved to the most current edition.			
3.1.4.	The entire pump shall be assembled and tested at the pump manufacturer's factory.			
3.1.5.	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.			
3.1.6.	The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance criteria outlined in the latest edition of NFPA 1901. Pump shall be free from objectionable pulsation and vibration.			
3.1.7.	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 are not acceptable.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
3.1.8.	The pump body shall be close-grained, gray iron and must be horizontally split in two sections for easy removal of the entire impeller shaft assembly, and designed for complete servicing from the bottom of the truck without disturbing setting of the pump in the chassis or apparatus piping which is connected to the pump. Pump body halves shall be bolted together on a single horizontal face to minimize leakage and facilitate reassembly.			
3.1.9.	The discharge manifold shall be cast as an integral part of the pump body assembly and shall provide at least three full 3.5" openings for ultimate flexibility in providing various discharge outlets for maximum efficiency, and shall be located as follows: <ul style="list-style-type: none"> • One outlet on the right side of the pump body • One outlet on the left side of the pump body • One outlet directly on top of the pump discharge manifold 			
3.1.10.	The impeller shaft shall be supported at each end by oil or grease lubricated anti-friction ball bearings for rigid and precise support. Bearings shall be protected from water and sediment by suitable seal housings, flinger rings, and oil seals. No sleeve type bearings shall be used.			
3.1.11.	The pump shaft shall have: one (1) mechanical seal on the suction (inboard) side of the pump. The mechanical seal must be spring loaded, maintenance free and self-adjusting.			
3.1.12.	The impeller shall be bronze with double suction inlets, accurately balanced (mechanically and hydraulically), labyrinth type, wear rings that resist water bypass and loss of efficiency due to wear.			
3.1.13.	The wear rings shall be bronze, and shall be easily replaceable to restore original pump efficiency and eliminate the need for replacing the entire pump casing due to wear.			
3.1.14.	The impeller shaft shall be stainless steel, accurately ground to size. The impeller shaft shall be of two-piece construction separable between the pump and pump transmission to allow true separation of the transmission from the pump without disassembly of either component.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
3.2.	GEARBOX			
3.2.1.	Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs ft. of drive through torque of the engine system. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.			
3.2.2.	The pump transmission shall be rigidly attached to the pump body assembly and be of latest design incorporating a high strength, involute tooth form Morse™ HV chain drive capable of operating at high speeds to provide smooth, quiet transfer of power. The shift engagement shall be accomplished by a free-sliding collar to maintain ROAD or PUMP position.			
3.2.3.	The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.			
3.2.4.	The pump shift shall be pneumatically operated and shall use a standard automotive air valve to control a double-action, air-shift cylinder. The in-cab control valve shall include a detent lock to prevent accidental shifting. One (1) manual pump shift shall be provided at the pump panel.			
3.2.5.	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 truck driving compartment and one green light on pump operator's panel adjacent to the throttle control. All lights to have appropriate identification/instruction plates and interior lights won't interfere with driver vision for nighttime glare.			
3.3.	PRIMING PUMP			
3.3.1.	The priming pump shall be a Waterous oil-less priming system electrically driven and conform to standards outlined by the NFPA. A single pump panel mounted control will activate the priming valve and start the priming motor. (no substitute)			
3.4.	PRESSURE CONTROL MECHANISM			
3.4.1.	A Fire Research Pump Boss 400 series pressure sensor governor shall be provided for the electronic engine. It			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
	shall include a remote mountable control head. The Pump Boss shall regulate the pump pressure by monitoring intake and discharge pressures as well as monitor all essential engine parameters. LED readouts shall display RPM, PSI, pump discharge and intake pressure, engine oil pressure, engine temperature and battery voltage. An audible alarm shall also be part of the system. (no substitute)			
3.5.	DRAIN			
3.5.1.	The pump shall be drained completely by a master drain located at the lowest point and operated from the pump panel.			
3.6.	AUXILIARY COOLING SYSTEM			
3.6.1.	A heat exchanger cooling system with a control at the pump panel shall be installed so as to permit use of water from the discharge side of the fire pump to cool the liquid circulating through engine system.			
3.7.	DERIVATION			
3.7.1.	A by-pass control shall be also installed at the pump panel to prevent pump overheating when all the outlets are closed.			
3.8.	PUMP PLUMBING			
3.8.1.	All plumbing shall be made of stainless steel. The components like elbows, tee, flanges, etc., shall be all stainless cast products. It shall have welded sub-assemblies and join together by Victaulic couplings and flanges bolted directly to the valves. No threaded type connection shall be accepted.			
3.8.2.	A "Victaulic" connection shall be used to allow flexion of the piping and to facilitate service.			
3.8.3.	The 2.5" diameter piping or higher shall be equipped with 0.75" drain with control on the side panel.			
3.8.4.	Every 2" or larger diameter valve shall have a 30 degree down elbow.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
3.8.5.	All inlet and discharge thread shall be NPSH for 1.5", CSA for 2.5", and NH for 6"			
3.8.6.	All 3" diameter valve and over shall be equipped with a slow close device, except the tank suction valve.			
3.8.7.	Every control shall be identified by a colour and number code and will match the individual drain valves for each.			
3.9.	CONNECTION BETWEEN PUMP AND WATER TANK			
3.9.1.	The tank to pump supply line shall be 4" with a 3" full flow ball valve with built-in check valve between the pump body and tank valve. The control shall be located on the pump panel. Akron hand-wheel with position indicator is preferred.			
3.9.2.	The piping and valve shall allow a nominal flow of 1900 liters per minute during 80% of the tank capacity.			
3.9.3.	One (1) 2.5" tank fill with control at pump panel with ability to gate back as desired			
3.10.	6" SUCTION			
3.10.1.	Two (2) NH 6" suction inlets, one each side, shall be supplied. One (1) long handle, chrome, and one (1) of the same material as the MIV valve threads shall be pressure rated suction caps with female threads shall be provided.			
3.11.	2.5" SUCTION			
3.11.1.	Two (2) 2.5" suction valves shall be mounted, one each side inside the pump compartment with strainers, chrome plugs and chains. It shall have an integrated drain valve. One (1) suction valve shall be controlled on the pump panel and the others shall be directly mounted on the valve. The controls shall operate vertically.			
3.12.	PRESSURE RELIEF VALVE			
3.12.1.	An Elkhart model 40-20 adjustable automatic pressure relief valve installed on the pump and on the supply side of the valve to bleed off pressure from a connected hose to the valve intake, shall be installed on each valve intake having a connection size of 90mm (3.5") or			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

	larger. Control will be located behind an access door at the right-side pump panel.			
3.13. 2.5" DISCHARGES				
3.13.1.	Four (4) 2.5" discharges, Akron 8825 Generation II ball valves shall be supplied with chrome caps and retaining chains. All discharge shall be controlled on the pump operator panel.			
3.13.2.	All 2.5" discharges valves shall be included 22.5° elbow and 0.75" drains valves. Those discharges valves shall be located as specified: <ul style="list-style-type: none"> ▪ Two (2) 2.5" on the right panel, includes one with 4" Storz fitting and cap ▪ One (1) 2.5" on the left panel ▪ One (1) 2.5" at the rear on driver side 			
3.14. 1.5" PRE-CONNECTS DISCHARGE VALVES				
3.14.1.	Two (2) 1.5" pre-connects speedlays with 2" Akron 8820 Generation II discharge valve with rotating type elbows shall be mounted on the driver's side for both cross-lays. The control shall be located on the pump panel. 2" hydraulic hose stainless steel and Victaulic couplings shall be used.			
3.15. 2.5" PRE-CONNECT DISCHARGE VALVE				
3.15.1.	One (1) 2.5" pre-connect with 2.5" Akron 8825 Generation II discharge valve with rotating type elbow shall be mounted on driver's side cross-lay. The control shall be located on the pump panel. 2.5" hydraulic hose stainless steel and Victaulic couplings shall be used.			
3.16. 1600 FOAM PRO SYSTEM				
3.16.1.	The apparatus shall be equipped with an electronic, fully automatic, variable speed, direct injection, and discharge side foam proportioning system. The system shall be capable of handling Class A foam concentrate. The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows and pressures. System must be capable of delivering accuracy to within 5% of calibrated settings over the advertised operation range			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
	when installed according to factory standards. 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 flowmeter, while also monitoring foam concentrate pump output. This compares values to ensure that the operator's preset is proportional to the amount of foam concentrate injected into the discharge side of the fire pump.			
3.16.2.	A paddle wheel-type flowmeter shall be installed in the discharge system specified to be "foam capable." A simulated flow feature shall be incorporated into the motor driver to simulate an approximate flow value of 100 gpm. This feature is to be engaged or disengaged with a momentary switch and will automatically disengage when the main system switch is turned off.			
3.16.3.	A 12 or 24-volt electric motor driven positive displacement plunger pump shall be provided. The pump capacity shall be from 0.1 gpm (0.38 L/min) to 1.7 gpm (6.4 L/min) at 200 psi (13.8 BAR) with a maximum operating pressure up to 400 psi (27.6 BAR). The pump shall have the capability to draw 3 feet of lift. The system will draw a maximum of 30 amps @ 12 VDC or 15 amps @ 24 VDC. The motor shall be controlled by the microprocessor (mounted to the base of the pump). It shall receive signals from the control module and power the 1/3 hp (.25 Kw) electric motor in a variable speed duty cycle to ensure that the correct proportion of concentrate is injected into the water stream. A full flow check valve shall be provided in the discharge piping to prevent foam contamination of fire pump and water tank. A 12 psi (.83 BAR) opening pressure check valve shall be provided in the concentrate line.			
3.17.	CONTROL MODULE			
3.17.1.	The control module shall enable the pump operator to: <ul style="list-style-type: none"> • Activate the foam proportioning system • Select proportioning rates from 0.1% to 1.0% • See a "low concentrate" warning light flash when the foam tank runs low. In two minutes, if foam concentrate is not added to the tank, shut the foam concentrate pump down. 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
3.18.	COMPONENTS			
3.18.1.	<p>Components of the complete proportioning system shall include:</p> <ul style="list-style-type: none"> ▪ Operator control and display ▪ Paddlewheel flowmeter(s) ▪ Pump and electric motor/motor driver ▪ Wiring harnesses ▪ Low level tank switch ▪ Foam injection check valve ▪ Main waterway check valve 			
3.19.	FOAM TANK			
3.19.1.	One (1) 20 imp. Gallons Class A foam tank shall be recessed in the water tank.			
3.19.2.	A Waterous powered foam tank fill system will be incorporated into the right-side pump panel to allow filling from the ground level. The fill hose will be secured on the inside of the right-side pump panel.			
3.20.	FOAM CONNECTION			
3.20.1.	The foam system shall be connected to the three (3) cross lays discharges.			
SECTION 4: PUMP OPERATOR PANEL				
4.	The pump operator panel shall be located on the left side of the vehicle in front of L1 compartment.			
4.1.	The pump panel, operator panel and the right panel shall be made of 14-gauge polish stainless steel.			
4.2.	The pump and operator panel shall be made in three sections to gain access to controls, gauges and pump access. The bottom section of the pump panel shall incorporate the drain valves and intakes and the mid section the controls and gauges on the top section. All sections shall be bolted on the pump compartment to allow the easy removal. Vertically hinged upper section with two (2) latches in order to facilitate the service.			
4.3.	All manometers shall be resistant to the corrosion and shall be silicon fill. There shall be double graduated and shall have a colour coded identification plate.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
4.4.	The 2.5" discharges on the pump operator panel shall be horizontally controlled and the others discharges shall be «push-pull» controlled.			
4.5.	All discharge shall be controlled from the pump operator panel.			
4.6.	<p>The pump operator panel shall include the following controls and gauges:</p> <ul style="list-style-type: none"> ▪ One (1) FRC Pump Boss pressure Governor with two additional indicators light one for check transmission warning and one for pump engagement indicator ▪ One (1) ITL 12093 water gauge ▪ One (1) pressure and one (1) vacuum test plug ▪ One (1) engine auxiliary cooler valve ▪ One (1) pump engagement indicator light ▪ One (1) primer control ▪ One (1) pump to tank by-pass valve ▪ One (1) drain at every location needed to assure a complete drainage (all the drains shall be located in the bottom of the side panel) ▪ One (1) 4.5" dual scale silicone pressure gauge -30 @ 0 @ 400 PSI, -100 @ 0 @ 2800 KPA ▪ One (1) 4.5" dual scale silicone vacuum gauge -30 @ 0 @ 400 PSI, -100 @ 0 @ 2800 KPA ▪ One (1) 2.5" dual scale silicone pressure gauge 0 @ 400 PSI, 0 @ 2800 KPA for each discharge ▪ One (1) tank fill control ▪ One (1) tank suction control ▪ One (1) switch for lights on control panel and right panel ▪ One (1) switch for hose bed lights ▪ One (1) switch for pump compartment lights ▪ One (1) pump compartment heater fan switch ▪ One (1) rotative master drain ▪ One (1) ULC acceptance plate 			
4.7.	Each suction and outlet shall be equipped with a 0.75" drain Class 1 #115639 swing handle. The drains shall be identified and aligned in the bottom of the control panel. All drains controls shall be identified by a number and a colour code.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

SECTION 5: PUMP COMPARTMENT				
5.	The pump compartment shall be detached from the rear body in order to avoid body torsion.			
5.1.	The pump compartment and pump shall be made in integrated module to allow the easy removal if needed.			
5.2.	There shall be lifting hooks incorporated in the module.			
5.3.	The exterior panel shall be made of aluminum 5052H32 and tread plate 3003-H22 with integrated grip plates with drain holes.			
5.4.	The pump and pump compartment shall be maintained on the truck frame by rubber supports in order to reduce vibration and torsion stress.			
5.5.	All air and water tube for the components (gauges, primer, inlets, outlets, etc.) shall be colour coded for easy servicing.			
5.6.	NFPA approved aluminum Trident with integrated LED step shall be installed on drivers and passenger side of the pump panel to the front of the body and bolted with a nylon washer to leave a gap between the compartment and step. The purpose of the step is to assist in gaining access to overhead storage compartment.			
5.7.	Aluminum grab handles with chrome supports, one (1) on each side, near the top of the front of the body above the step area. The purpose is to provide stability while reaching into overhead storage compartment.			
5.8.	One (1) set of Clare wrenches in holder will be mounted to the right-side pump panel area.			
5.9.	PLUMBING AND PUMP ACCESS			
5.9.1.	There shall be on the right side a full width hinged vertically door with 18" high opening to give an opening for pump access. There shall be an overlap 14 ga. Polished stainless-steel door with two (2) compression locks.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
5.10. TRANSVERSAL PRE-CONNECTS				
5.10.1. Two (2) transversal speedlays 1.5" shall be installed between the back of cab and the pump compartment, being part of the pump module. Each section of the speed lay shall hold 200' of 1.75" double jacket hose.				
5.10.2. One (1) transversal pre-connect 2.5" shall be installed above the pump panel and hold 200' of 2.5" hose and closest to the cab side to leave maximum room for overhead storage compartment				
5.10.3. Each speedlay shall have a lightweight, yet sturdy removable tray to load hose outside of apparatus. The tray shall be designed so hose can be deployed from either side of the pump panel. Each side of the cross lay shall be equipped with 1.25" diameter stainless steel rollers, one (1) horizontal and (2) two vertical in order to facilitate the hose unloading.				
5.10.4. The speedlay hose connections will be designed for easy access and completely drain from pump panel individual drains.				
5.10.5. The speedlay will have quick release latches to remove hose trays and be covered with hose-bed cover material with part of cover permanently attached to panel and the rest quickly and easily removable to gain access to hoses and nozzle.				
5.10.6. A transversal storage compartment shall take up the remainder of the space above the width of the pump compartment with checker plate pan style doors on each side. The finish inside of the compartment will be the same as the body compartments.				
5.11. PUMP HEATER				
5.11.1. One (1) 22673 B.T.U. heater shall be installed in the pump compartment. The control for the heater shall be located on the control panel.				
5.11.2. One (1) aluminum heat pan shall be installed under the pump compartment. It shall have two easily removable panels.				
5.11.3. The heat pan shall be closely cut around the following accessories: exhaust system, drive shaft, air tank, etc.				

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

SECTION 6: ALUMINUM BODY				
6.	GENERAL			
6.1.1.	The apparatus body shall be constructed in order to meet federal, provincial laws and CAN/ULC-S515-04 standard.			
6.1.2.	The bidders shall be approved by the Canadian Welding Bureau for aluminums W 47.2 division 2.1. and steel W47.1 division 2.			
6.1.3.	The angle of departure shall have 10° when the vehicle is normally charge.			
6.2.	CONSTRUCTION BODY			
6.2.1.	The body shall be made of aluminum.			
6.2.2.	The aluminums sheet shall be 5052H32 type for a better corrosion resistance. The aluminums tread plate shall be 3003-H22 with integrated grip plates with drain holes.			
6.2.3.	When completed the compartments shall form an integrated body fully welded and sealed.			
6.2.4.	The top of the compartment shall be covered with 3003-H22 aluminums tread plate.			
6.2.5.	The body cross member shall be made of extruded aluminums 6061 T6 3" x 3" x 0.25". They shall seat on aluminums flat bar 3" x 0.75".			
6.2.6.	Each cross member shall be welded to the back of the compartment. The cross member each side of the rear wheel shall be the full width of the body.			
6.2.7.	For a good stress distribution, two cross members shall be side by side at the front of the body and one fully welded on the overall width of the rear of the body and supported by the end of the frame rail.			
6.2.8.	The space between the cross member shall be according to the tank manufacturer requirements.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
6.3.	SIDE FENDERS AND LINERS			
6.3.1.	The rear side fender will be integral with the side compartment.			
6.3.2.	Removable aluminum liner shall be installed around the rear wheels to protect the body.			
6.3.3.	Stainless steel fender crowns will be provided around the rear wheel openings. A rubber welting will be provided between the body and the crown to seal the seam and restrict moisture from entering. A dielectric barrier will be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.			
6.4.	COMPARTMENT VENTILATION			
6.4.1.	Louvers must be stamped into compartment walls to provide proper air flow inside the body compartments and to prevent water from dripping into the compartment.			
6.5.	REAR BODY			
6.5.1.	The entire rear of the body below the hose bed shall be painted.			
6.5.2.	Rear Bumper Step shall be bolted to the main body. A nylon washer 0.25" thick shall leave a gap between the body and the step.			
6.5.3.	The 14" deep rear step shall be made of aluminum tread plate, 3003-H22 with integrated grip plates and drain holes to meet ULC requirements.			
6.5.4.	Ziamatic 15" wide swing down and out vehicle ladder with integrated lighting will be installed on the rear of the apparatus (location to be determined in pre-build meeting).			
6.5.5.	Two (2) NFPA approved aluminum Trident with integrated LED steps will be installed on the RR of the body to assist in access to right side upper suction hose compartment. One (1) aluminum grab handle with chrome supports will be installed in the RR area to coincide with the fold down steps for stability.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
6.6.	HOSE BED COMPARTMENT			
6.6.1.	Hose bed compartment shall be installed over the water tank. The flooring of the hose bed must be removable 0.75" x 3" aluminum corrugated grating.			
6.6.2.	Three (3) adjustable hose bed dividers made of 0.25" aluminum shall be installed in the rear hose bed. The divider shall have an extruded track-slide to allow adjustment for different hose capacities and/or create a walkway. The dividers will have hand grab cut-outs at the rear of each divider.			
6.6.3.	One (1) aluminum grab handle with chrome supports will be installed at the LR of the hose bed area to assist in transitioning from ladder to hose bed area.			
6.7.	BODY INSTALLATION			
6.7.1.	An aluminum 6061-T6, 3" x 3/4" flat bar shall be installed over the overall length of the frame. The body cross member shall be welded to it.			
6.7.2.	The body shall be attached to the truck frame through a « U » bolt system. Springs shall be used to reduce torsional stress on the body. Side to side stopper shall be welded to the cross member to maintain alignment of the body.			
6.8.	RUB RAILS			
6.8.1.	A "U" rub rail made of aluminum anodised extrusion 6061 T6 shall be installed each side of the body. 1" white reflective striping shall be installed in rub rail channel.			
6.8.2.	A nylon washer shall leave a gap with the body in order to eliminate salt and water retention.			
6.9.	HARD SUCTION HOSE COMPARTMENT			
6.9.1.	There shall be storage on left and right side, top of the apparatus to house two (2) (one on each side) 10' lengths of light weight suction hose with rear access door with pan style handle.			
6.10.	PIKE POLES AND LADDER COMPARTMENT			
6.10.1.	There shall be a compartment through the water tank, accessible by an aluminum smooth finish door with pan			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
	handle to store one (1) 24' and one (1) 14' roof ladder, one (1) collapsible 10' attic ladder, two (2) pike poles (one 6' and one 8') and one (1) EMS style backboard – 72.5" long x 16" wide.			
SECTION 7: AMDOR ROLL-UP COMPARTMENT				
7.1.	<p>Compartment doors shall be equipped with Amdor brand roll-up doors complete with the following features:</p> <ul style="list-style-type: none"> ▪ 1" aluminum double wall slats with continuous ball and socket hinge joint and recessed dual durometer slat seal ▪ Double wall reinforced bottom panel with stainless steel lift bar latching system ▪ Bottom panel flange with cut-outs for ease of access with gloved hands ▪ Reusable slat shoes with positive snap-lock securement ▪ Smooth interior door curtain to prevent equipment hang-ups ▪ Once-piece aluminum door track/ side frame ▪ Top gutter with non-marring seal ▪ Non-marring recessed side seals with UV stabilizers to prevent warpage ▪ Dual leg bottom seal, with all wear component material to be Type 6 Nylon 			
7.2.	A 30-amp magnetic commutator two contacts shall be used for lights control.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

SECTION 8: COMPARTMENTS

The following compartments shall be provided:

Location	Qty	Openings Dimensions			Conformity		Specifications
		Width	Height	Depth	Yes	No	
Left side							
Ahead of the rear wheel	1 (L1)	34"	58.5"	27"			
Above the rear wheel	1 (L2)	58"	25"	27"			
Behind the rear wheel	1 (L3)	40"	58.5"	27"			
Right side							
Ahead of the rear wheel	1 (R1)	34"	58.5"	15" 27"			
Above the rear wheel	1 (R2)	58"	25"	15"			
Behind the rear wheel	1 (R3)	40"	58.5"	15" 27"			
At rear	As per ladder designed as per Section 6.10						

SECTION 9: ACCESSORIES AND BRACKETS

9.1.	<p>Swing Out Tool Board</p> <ul style="list-style-type: none"> ▪ L2 compartment will house a depth adjustable double-sided PAC tool double dual trac mounting board. PAC positive locking hardware will be included to mount ▪ Pick head axe ▪ Flathead axe with Haligan entry tool kit ▪ Clare hose wrench kit in holder ▪ Kocheck K45-3 spanner wrenches and hydrant wrench in holder ▪ Double male and female adapters for both 38 mm and 65mm fittings ▪ Spare 38mm and 65mm nozzle ▪ Gated Y fitting (65mm female to 2 x 38mm male) ▪ 4" Storz fitting ▪ Glass cutting saw and window punch ▪ TFT Piercing nozzle kit ▪ Standard construction type pry bar ▪ Paratech Pry Axe ▪ Two (2) rubber mallets 			
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ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS				
		YES	NO					
9.2.	SLIDING TRAYS							
9.2.1.	Aluminum sliding tray will be able to support a minimum weight of 500 lbs. It shall have an open and close holding device.							
	<table border="1"> <tr> <td>LR compartment</td> </tr> <tr> <td>PAC mounting for 3-piece e-hydraulic tool set</td> </tr> </table>	LR compartment	PAC mounting for 3-piece e-hydraulic tool set					
LR compartment								
PAC mounting for 3-piece e-hydraulic tool set								
9.3.	ADJUSTABLE SHELVES							
9.3.1.	The shelf will be bolted to an aluminum track which will permit the up and down adjustment. Each compartment shall have an aluminum track.							
	<table border="1"> <tr> <th>Qty</th> <th>Location</th> </tr> <tr> <td>9</td> <td>As specified by the customer</td> </tr> </table>	Qty	Location	9	As specified by the customer			
Qty	Location							
9	As specified by the customer							
9.4.	SCBA AND CYLINDERS STORAGE							
9.4.1.	Four (4) SCBA cylinders compartments shall be installed in the wheel well. The door shall be Cast Product model FT-AD0013-1. To prevent wear on the cylinders the rear wall of each SCBA storage area or tube shall be protected with a material such as: rubber, plastic, or similar material.							
9.4.2.	One (1) Additional SCBA and spare bottle will be mounted in RF compartment in appropriate cylinder holders.							
9.5.	Winch							
9.5.1	A winch bracket will be flush mounted below L3.							
9.5.2	Quick connect wiring will be provided in L3 to power removable winch and power will be switched from the dash.							
SECTION 10: WATER TANK - 900 IG								
10.	CONSTRUCTION							
10.1.1.	The tank shall be made of polypropylene. It shall have a capacity of 900 IG and conform to CAN/ULC-S515-13. A life time warranty shall be supplied by the tank manufacturer. A copy of the warranty shall be provided with the document bid.							

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
10.1.2.	The tank will be constructed of 0.5" thick non-corrosive stress relieved copolymer polypropylene thermoplastic.			
10.1.3.	The tank shall be so designed to be completely independent of the unit body and compartments.			
10.1.4.	All transverse swash partition shall be fabricated of 3/8" thick copolymer polypropylene minimum and shall extend to just under the cover. The longitudinal swash partition shall be fabricated 3/8" thick copolymer polypropylene minimum and shall extend from the floor of the tank through the cover.			
10.1.5.	In cases where overall height of the tank exceeds 40", reinforcement shall be installed on tank bottom to allow for more positive welding and provide greater strength.			
10.1.6.	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.			
10.1.7.	All swash partition shall inter lock with one another and shall be welded to the walls of the tank as well as to each other as per CAN/ULC-S515-04. All joints and seams shall be nitrogen welded and shall undergo a high frequency voltage testing during fabrication of the tank.			
10.1.8.	All tank fill coupling shall be equipped with a flow deflector to break up the stream of water interring the tank capable of withstanding sustained fill rate up to 3750 LPM.			
10.2.	FILL TOWER			
10.2.1.	The tank shall be equipped with a manual fill tower combined with vent and 0.25" polypropylene removable screen.			
10.2.2.	The fill tower shall be constructed of 0.5" copolymer polypropylene with minimum dimension of 10" x 14" and shall have a hinged type cover. Inside the fill tower approximately haft way from the top shall be fastened a vent overflow pipe.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
10.2.3.	The vent overflow pipe shall be a minimum 4" polypropylene designed to run through the water tank and discharge behind the rear axle.			
10.2.4.	The fill tower shall be located in the front left corner of the tank.			
10.3.	TANK COVER			
10.3.1.	Standard tank cover shall be fabricated of 0.5" copolymer polypropylene in three pieces recessed 3/8" from the top of the tank.			
10.3.2.	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 anchorage location for lifting eyes and reinforcing the rigidity of the cover under fast filling conditions. The floor of the hose body compartments shall have 200lb/ft ² capacity.			
10.4.	SUMP BOX			
10.4.1.	The tank shall have one (1) sump and shall be constructed of 0.5" copolymer polypropylene and be located in the left front quarter of the tank. A anti-swirl plate shall be installed on all tanks approximately 2" above the sump box.			
10.4.2.	The sump box shall have a 3" NPT threaded outlet on the bottom and shall be used as a combination clean-out and drain.			
10.5.	MOUNTING			
10.5.1.	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 of the tank floor, and in cases where the tank height exceed 38" the unsupported area of the tank floor shall be reduced to not more than 390 square inches. The tank must be completely isolated from the supporting cross members with the use of rubber strips.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
10.6.	TANK ATTACHMENT			
10.6.1.	The tank shall be locked in place by a two-point system to allow frame torsion.			
10.7.	TANK DRAIN			
10.7.1.	A 3" opening shall be installed on the sump for tank clean-up.			
SECTION 11: PAINT				
11.	DESCRIPTION			
11.1.	Automotive high-quality paint shall be used.			
11.2.	The vehicle shall be painted one tone.			
11.3.	All the accessories shall be installed, adjusted and removed before the paint is applied. All components shall be painted separately to ensure complete paint application for corrosion protection.			
11.4.	The body shall be grinded, sanded, cleaned before the first protection coat.			
11.5.	The inside of the compartment shall be aluminum brushed.			
11.6.	Reflective Stripe(s)			
11.6.1.	The perimeter of the firefighting apparatus shall have reflective stripe(s) in compliance with CAN/ULC S515-13, matching customer layout, including lettering to be determined at pre-build.			
11.6.2.	Door crests will be provided by the department and installed by the builder.			
11.7.	Reflective Stripe, Cab Doors			
11.7.1.	A reflective stripe shall be provided on the interior of each cab door. This stripe shall be a minimum of 4" in width and run the height and width of the door.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

SECTION 12: ELECTRICAL SYSTEM				
12.	GENERAL			
12.1.1.	All electrical equipment shall be conformed to modern automotive practice. C.M.V.S.S. (Canada Motor Vehicle Safety Standards) and CAN/ULC-S515-13.			
12.1.2.	Warning devices signalling the call for the right-of-way or stopping shall be conformed to CAN/ULC-S515-13.			
12.1.3.	Insulation, as recommended by SAE for such loading shall be employed, all electrical equipment shall be installed to conform to modern automotive practice. All wiring installed shall be run in loom or conduit where exposed, and shall be protected from overloads by automatic reset circuit breakers which shall be selected to prevent wire damage when subjected to extreme current overload which conforms to SAE standards.			
12.1.4.	A waterproof electrical box shall include all the automatic breakers and relays.			
12.1.5.	All electric switches shall have an automatic breaker and relay.			
12.1.6.	The gauge of the stranded copper or copper alloy wire conductor shall be rated to carry 125% of the maximum current for which the circuit is protected.			
12.1.7.	All wiring from power source to using device shall not have a voltage drop exceeding 10%.			
12.1.8.	All electrical lights switches shall be mounted on a panel installed on a dashboard in the cab.			
12.1.9.	All electrical components shall be water resistant and shall be designed to operate in heavy moisture conditions.			
12.1.10.	All 12 Volts electrical wire shall be GXL automotive type.			
12.1.11.	A dielectrical grease shall be applied on each connector to protect from moisture and corrosion.			
12.1.12.	All wiring shall be thoroughly secured, suitably supported and protected with loom against heat, oil and physical injury.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
12.1.13.	A rubber grommet shall be used to protect any electrical wire passing through the body wall.			
12.1.14.	All wires shall be colour, number and function coded.			
12.1.15.	A cut-off switch shall be installed in the cab. The cut-off shall be connected directly on the batteries. Green "battery on" pilot light visible from driver's position required.			
12.2.	SIREN AND SPEAKER			
12.2.1.	One (1) Federal Signal PA640 electronic siren shall be installed in the cab and 100 watts Federal Signal #ES100C recessed waterproof speaker with chrome plate #ESFMT-EF shall be mounted behind the front bumper.			
12.2.2.	Siren will be actuated by a foot switch on the officer's side and by the horn button in the steering wheel. The driver will have the option to control the siren or the chassis horns from the horn button by means of a selector switch.			
12.3.	DO NOT MOVE APPARATUS WARNING			
12.3.1.	A flashing red light, an audible alarm shall sound when a door is open, the air brake is released and the vehicle is shifted into gear. The light and alarm shall be interlocked for activation when a cab door is not firmly closed, an apparatus cabinet door is not closed and the parking brake is released.			
12.4.	BACKUP ALARM AND CAMERA			
12.4.1.	A self adjusting electronic audible back-up alarm (82-107dB) shall be provided and activated when the truck is shifted to the reverse gear position.			
12.4.2.	FRC Rear view camera will be included in the design to provide driver clear vision of behind the apparatus. The camera will be well protected.			
12.5.	INTERIOR CAB LIGHTING			
12.5.1.	The interior cab lighting shall be according to the chassis manufacturer standard with the addition of one Red overhead light for nighttime requirements without driver glare or distraction.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
12.6.	LIGHTBAR			
12.6.1.	A Whelen Freedom, 60" LED warning light-bar system shall be furnished and rigidly mounted to meet the requirements of Zone A lighting as per NFPA 1901 (latest edition) and ULC S515-04. The light-bar shall have blue corner modules and remaining red and white lights.			
12.7.	FRONT WARNING LIGHTS			
12.7.1.	Two (2) Whelen C7 LED, one blue, one red warning lights within a chrome bezel shall be mounted on the fascia of the cab.			
12.7.2.	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.			
12.8.	INTERSECTION WARNING LIGHTS			
12.8.1.	Two (2) Whelen C7 LED red warning lights within a chrome bezel shall be mounted on the cab fender forward of the front axle center line.			
12.8.2.	Two (2) Whelen C6 LED red warning lights within a chrome bezel shall be provided on each side of the truck body.			
12.9.	REAR WARNING LIGHTS			
12.1.1.	The roads lights shall conform to the CMVSS regulations. All the lights shall be installed in a triple aluminum casting. <ul style="list-style-type: none"> ▪ Two (2) Whelen C6 LED turn signal with arrow directional lights shall be mounted at rear of the apparatus. ▪ Two (2) Whelen C6 LED brake/tail/turn lights shall be mounted at rear of the apparatus. ▪ Two (2) Whelen C6 LED back-up lights shall be provided at rear of the apparatus. They should be activated when truck is shifted into reverse. 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
	<ul style="list-style-type: none"> ▪ Two (2) Whelen C7 LED red warning light within a chrome bezel shall be mounted at rear of vehicle – location to be discussed at pre-build meeting. 			
12.10.	<p>ROTATING BEACONS</p> <p>12.10.1. Two Whelen L31 Super LED Beacons, one blue (right) and one red (left) shall be mounted on each side, at rear on top of the vehicle.</p>			
12.11.	<p>CLEARANCE AND IDENTIFICATION LIGHTS</p> <p>12.11.1. The roads lights shall conform to the C.M.V.S.S. regulations. Tecniq S33 LED lights with Stainless trim ring will be used, except for license plate light.</p> <p>On front: (Supplied with the chassis)</p> <ul style="list-style-type: none"> ▪ Three (3) identification lights ▪ Two (2) clearance lights <p>On sides:</p> <ul style="list-style-type: none"> ▪ Two (2) red clearance light ▪ Two (2) red reflectors ▪ Two (2) amber clearance light ▪ Two (2) amber reflectors <p>On rear:</p> <ul style="list-style-type: none"> ▪ Three (3) red identification lights ▪ Two (2) red clearance light ▪ Two (2) red reflectors ▪ One (1) Chrome LED light with bracket for licence plate 			
12.12.	<p>HOSE BED LIGHTS</p> <p>12.12.1. Two (2) Sobrite Led Trapezoid SRA110-07C (swivel and folding) shall be supplied for the lighting of the hose bed. The location shall be discussed at the pre-construction meeting.</p> <p>12.12.2. One (1) switch shall operate both lights from the pump panel and be clearly marked.</p>			
12.13.	<p>ENGINE COMPARTMENT LIGHT</p> <p>12.13.1. Two (2) LED lights shall be located inside the engine hood.</p>			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
12.14.	PUMP COMPARTMENT LIGHT			
12.14.1.	Two (2) LED lights shall be located inside the pump compartment. The switch shall be on the pump panel.			
12.15.	COMPARTMENT LIGHT			
12.16.	<p>All compartment lighting will be comprised of the Amdor Luma Bar LED system without exception or substitution. The Amdor Luma Bar system utilized will include the following key features:</p> <ul style="list-style-type: none"> ▪ Wide angle 120° surface mount LED installed on a printed circuit board for shock and vibration resistance ▪ Lighting will be enclosed within a high impact polycarbonate enclosure ▪ Output will exceed NFPA 1901 compartment lighting standard ▪ Draw not to exceed 130 mA per foot /forward voltage of 20mA per LED ▪ 21" boards will be connected in series using a high-grade Molex connector ▪ Lighting system will include the patented ability to aim the printed circuit board for differing applications and compartments layouts ▪ System will provide the option to utilize an extruded aluminum retainer for installation 			
12.17.	PUMP PANEL LIGHTS			
12.17.1.	A full horizontal LED Lumabar strip light shall be installed under transversal, right and left lampshades of the pump panels. It shall be activated from a switch located at the pump operator panel.			
12.18.	GROUND LIGHTS AND CAB STEP LIGHT			
12.18.1	<p>Lumabar H20 ground light and cab step light shall be supplied at the following location:</p> <ul style="list-style-type: none"> ▪ One (1) mounted above the step located under each cab door which shall activate with the opening of the respective door ▪ One (1) mounted under each cab step which shall be activated with the opening of the respective door ▪ One (1) mounted under each pump compartment step 			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

	<ul style="list-style-type: none"> ▪ Two (2) mounted under the step at the rear of the vehicle 			
12.19.	<p>SCENE LIGHTING</p> <p>12.19.1. Two (2) FRC SPA530-R14 LED telescopic lights shall be installed on each side of pump panel and switched in the cab.</p> <p>12.19.2. Two (2) FRC SPA900-Q7 Lights will be mounted on high up on the rear of the apparatus to provide area lighting and will activate when in reverse or by in cab switch.</p>			
12.20.	<p>BATTERY CHARGER, COMPRESSOR AND AUTO-EJECTS</p> <p>12.20.1. One (1) Kussmaul 091-56-12 kit, including one (1) Charger Pump Plus 1000, one (1) Auto Pump 091-9B-1 12 volts, one (1) remote bar graph and one (1) super auto eject 20 amps shall be installed on the vehicle as per customer's specification. (Expected load will be discussed at pre-build to confirm model required.)</p> <p>12.20.2. 110V shore power charging plugs will be located in the LR compartment, cab area x 2, exact location to be discussed at pre-build.</p> <p>12.20.3. 12V charging for iPad in cab and bank charger for flashlight will also be pre-wired, location to be discussed at pre-build meeting.</p>			
12.21.	<p>CAB COMMUNICATION RADIO ANTENNA</p> <p>12.21.1. There shall be a base for a VHF antenna mounted on the cab roof. Cable from the base shall be routed to the center front cab area. There shall be 2' of cable coiled at this position to allow for radio installation by the department. The whip for the antenna will also be provided for installation by the department.</p>			
SECTION 13: FINISHING				
13.1.	<p>HOSE RESTRAINT</p> <p>13.1.1. The hose in the hose bed will be restrained by black vinyl tarp at the top and rear. Velcro strapping will hold the tarp in place.</p>			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
13.1.2.	Two (2) chrome tow eyes will be installed on the rear of the apparatus. The tow eyes will be properly reinforced so that the truck can be pulled from these eyes.			
13.1.3.	A mudguard shall be located at rear of the front and rear wheels.			
13.2.	CORROSION PROTECTION			
13.2.1.	The accessories shall be installed on the vehicle with a special precaution against corrosion.			
13.2.2.	The compartment doors shall be installed, adjusted and well sealed to prevent entry of water and dust.			
13.2.3.	An isolation product shall be installed wherever two different material are in contact. A nylon washer shall be used with stainless steel screw.			
13.3.	UNDERCOATING			
13.3.1.	One Krown rust protection system shall be provided by the authorized undercoating agency.			
13.4.	HELMET STORAGE			
13.4.1.	A storage location for MSA XF1 fire helmets shall be provided. Helmets shall be secured in compliance with CAN/ULC-S515-13 section 13.2.1. Location to be discussed at pre-build meeting.			
SECTION 14 : TESTS AND APPROVALS				
14.	The vehicle shall be constructed following ULC/CAN-S515-13 latest edition.			
14.1.	The U.L.C. inspector and all cost related to the test shall be paid by the manufacturer.			
14.2.	The ULC label shall be installed on the pump panel after approval.			
14.3.	The Fire Truck builder shall be certified by the Canadian Welding Bureau standard W47.1 division 2 and W47.2 division 2.1.			

ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	

SECTION 15: EQUIPMENT				
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15.	<p>The following equipment shall be supplied and installed on the vehicle:</p> <ul style="list-style-type: none"> ▪ Two (2) 6" lightweight transparent suction hoses for main suction of the pump ▪ One (1) 6 lb fiberglass handle flathead axe ▪ One (1) 6 lb fiberglass handle pickhead axe ▪ One (1) 6' fiberglass handle pike pole ▪ One (1) 8' fiberglass handle pike pole ▪ Two (2) Zico SAC-44-E folding wheel chocks with Zico SQCH-44-H supports shall be installed in front of rear wheels ▪ One (1) 24', two-section Duo-Safety ladder ▪ One (1) 14' roof ladder (with hooks), Duo-Safety ▪ Two (2) Clare wrench set with holder ▪ One (1) Kochek K45-3 wrench set, hydrant wrench and holder ▪ One (1) nozzle for hose reel with pistol grip and shut off control ▪ One (1) gated Y, 65mm female with 2 x 38mm male with individual control. Material to be non-painted style 			
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15.1.	<p>Additional equipment requested by CAN/ULC-S515-13:</p> <p>Note: The price does not include the equipment listed in the new CAN/ULC-S515-13.</p>			
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SECTION 16 : PERMANENT NAME AND INFORMATION PLATE				
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16.	<p>A plate shall show the height of the completed fire fighting apparatus in metres, the length of the completed fire fighting apparatus in metres, and GVWR in kilograms.</p>			
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16.1.	<p>A plate, which is permanently affixed in the driving compartment shall provide the quantity and type of the following fluids used in the vehicle:</p> <ul style="list-style-type: none"> ▪ Engine oil ▪ Engine coolant ▪ Chassis transmission fluid ▪ Drive axle(s) lubrication fluid ▪ Air conditioning refrigerant 			
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ITEMS	DESCRIPTIONS	CONFORMITY		SPECIFICATIONS
		YES	NO	
	<ul style="list-style-type: none"> ▪ Air conditioning lubrication oil ▪ Power steering fluid ▪ Transfer case fluid ▪ Front tire cold pressure ▪ Rear tire cold pressure 			
16.2.	A label shall be mounted on the tank fill opening indicating the type of fuel to be used.			
16.3.	Hazard light sign required that reads: «DO NOT MOVE APPARATUS WHEN LIGHT IS ON. »			
16.4.	A warning label shall be located on the vehicle at the rear step areas and at any cross walkways to prohibit riding in or on these areas while the vehicle is in motion.			

"Part D" Bid Form

The Corporation of the Township of Douro-Dummer

894 South Street

Warsaw, Ontario K0L 3A0

Supply and Delivery of 1 (one) Pumper Fire Apparatus

Documents to be included in this Bid Form:

- One (1) Original and One (1) Copy of the Complete Bid Document Signed and Sealed
- A 10% bid bond and a letter of intent stating that a performance bond equal to 50% of the value of the contract shall be issued **if** the contract is awarded to the bidder
- Proof of public liability and product liability insurance for a minimum amount of \$2,000,000
- A company resolution authorizing a duly authorized representative to sign the bid
- A Canada Motor Vehicle Safety Standards (C.M.V.S.S.) certificate
- A Canadian Welding Bureau certificate for aluminum certifying that the bidder complies with the CSA W47.2
- A Canadian Welding Bureau certificate for steel certifying that the bidder complies with the CSA W47.1
- The lifetime warranty supplied by the tank manufacturer
- The bidder shall include with the bid a written document confirming the warranties offered to the contracting authority to cover the vehicle, including components, paint and equipment. This document shall contain all the required information regarding the nature, scope, length and terms of these warranties.

- A general plan (left side, right side, back) bearing the signature, the number, and the seal of an engineer having at least five years of experience in the manufacturing of fire trucks

- An example of the electrical diagram will be provided at the delivery of the vehicle

- A sample of the electrical wiring with colour codes, functions and numbers

- Manufacturer shall be a member of the Fire Apparatus Manufacturer Association (FAMA) and should provide a copy of the certificate

Bidders Information Form

Bidders must complete this form and include with the Bid Submission.

Please ensure all information is legible.

1.	Company Name	
2.	Respondent's Main Contact Individual	
3.	Complete Mailing Address	
4.	Office Phone #	
5.	Toll Free #	
6.	Fax #	
7.	e-mail address	
8.	HST Account #	
9.	Disclosure of Information and Freedom of Information	See Chart and Checkbox Below

Disclosure of Information and Freedom of Information

The Bidder hereby consents to the disclosure, on a confidential basis, of this Bid by the Township to the Township staff for the purpose of evaluating or participating in the evaluation of this Bid.

The Municipal Freedom of Information and Protection of Privacy Act, as amended, ("MFIPPA") applies to records provided to the Township by a Bidder, and may require disclosure of such records to third parties.

The following chart is provided for Bidders to list all records supplied in confidence by the Bidder to the Township pursuant to this procurement process (e.g. their Bid or any accompanying documentation). It is intended to assist the Township in determining what aspects of the Bid are non-confidential (i.e.,

contain publicly available information), and what aspects are confidential. Confidential aspects either contain:

- trade secrets, commercial, financial, scientific or technical information, that is supplied in confidence, the disclosure of which would involve harm (per section 10 of MFIPPA); or
- personal information (per section 14 of MFIPPA).

We will not be submitting for Disclosure of Information and Freedom of Information

Record *	Full Disclosure *	Partial Disclosure *	Identify portions of Record (e.g. pages or sections) that are supplied in confidence exemption(s) or exclusion(s) under MFIPPA being relied upon *

Acknowledgement To Receipt Of Addenda

This will acknowledge receipt of the following addenda and, that the pricing quoted includes the provision set out in such addendum(s)

Addendum #	Date Received
# _____	_____
# _____	_____
# _____	_____

Check here if No Addenda received.

Respondent

Signature

Date

Schedule of Items and Prices

1. Pricing

Quantity	Description	Unit Pricing
1	Fire Truck, Pumper	\$
HST		\$
TOTAL (INCLUDING HST)		\$

2. Delivery Schedule

Proponent to provide realistic delivery schedule as follows:

Delivery	Specify in Weeks
<p>Total number of calendar weeks from receipt of Award of RFT until delivery to the Township of Douro-Dummer, 894 South St. Warsaw, ON K0L 3A0</p>	

Sub-Contractors/Suppliers/Sub-Consultants

Submit a list of sub-contractors/suppliers/sub-consultants to be used for the supply of the goods/services, or indicate "Not Applicable".

Contact	Details
Name:	Company Name:
	Type of Goods/Services provided:
Phone:	Address:
Email:	Years in Business:
Name:	Company Name:
	Type of Goods/Services provided:
Phone:	Address:
Email:	Years in Business:
Name:	Company Name:
	Type of Goods/Services provided:
Phone:	Address:
Email:	Years in Business:
Name:	Company Name:
	Type of Goods/Services provided:
Phone:	Address:
Email:	Years in Business:

Email:	Years in Business:
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References

Please list a minimum of three references where your company has provided similar goods or services within the last three years and indicate the goods/services provided.

Company Name and Phone Number	Contact Person(s)	Type of Goods/Services Provided
1.		Goods/Services: Dates:
2.		Goods/Services: Dates:
3.		Goods/Services:

		<p>Dates:</p>
4.		<p>Goods/Services:</p> <p>Dates:</p>

Note:

If insufficient space is provided in this, please provide the required information in the same format on a separate form attached to this Tender.

Declaration of Accessibility Compliance

Company Name:	
Print Name:	
Title:	Dated:

I/ we acknowledge that as a Contractor/Consultant of the Township of Douro-Dummer, we are bound to comply with all accessibility Standards under the Accessibility for Ontarians with Disabilities Act, 2005 as amended from time to time.

I/we declare that I/we have read, understand and will meet or exceed all enacted accessibility Standards as amended from time to time.

I/we further declare that I/we will undertake to ensure all sub-contractors hired by us in completion of our work will also comply with the above Standards.”

To the Township of Douro-Dummer, Hereafter called the "Township":

I/We _____ the undersigned declare:

1. That the several matters stated in the said Bid are in all respects true accurate and complete.
2. That I/We have read and fully understand all information, terms and conditions contained within the Bid Document, including: Part "A" Information to Bidders; Part "B" Standard Terms and Conditions; Part "C" Specifications and Part "D" Bid Form.
3. That I/We do hereby Bid and offer to enter into a Contract to Supply and Deliver all materials mentioned and described or implied therein including in every case freight, duty, currency exchange, H.S.T. in effect on the date of the acceptance of bid, and all other charges on the provisions therein set forth and to accept in full payment therefore, in accordance with the prices and terms set forth in the Bid herein.
4. That this Bid is irrevocable for Ninety (90) Days and prices for as long as stated elsewhere in the Bid Document, and that the Township may at any time within that period without notice, accept this Bid whether any other Bid has been previously accepted or not.
5. That the awarding of the Contract, by the Township is based on this submission, which shall be an acceptance of this Bid.
6. That if the Bid is accepted, I/We agree to furnish all documentation, security and certifications as required by the Bid Document and to execute the attached formal contract (Appendix A) in triplicate, within ten (10) working days after notification of award. I/We understand that any acceptance by the Township is fully conditional upon the receipt of said documentation, security and certifications by the Township within ten (10) working days. If I/We fail to do so, the Township may accept the next lowest or any Bid or to advertise for new bids, or to carry out completion of the works in any other way they deem best.
7. That I/We agree to save the Township, its agents, or employees, harmless from liability of any kind for the use of any composition, secret process, invention, article or appliance furnished or used in the performance of the Contract of which the Bidder is not the patentee, assignee, or licensee.

The undersigned affirms that they are duly authorized to execute this bid.

Bidder's Signature and Seal: _____

Position: _____

Witness: _____

Position: _____

(If Corporate Seal is not available, documentation should be witnessed)

Dated at the (Town/City) _____ of _____

This _____ day of _____, 2021.