

**Valley Regional Fire Authority
Invitation to Bid for a Brush Truck
July 19, 2023**

NOTICE

The Valley Regional Fire Authority (VRFA) is requesting bids from qualified individuals and/or firms for a brush truck.

SUBMISSION OF BID

To receive consideration, responses must be submitted in accordance with the following instructions:

1. All submittals must be sealed and delivered to:

Valley Regional Fire Authority
Station 31
Attention: Deputy Chief Tim Day
1101 D Street NE
Auburn, WA 98002

2. Submit one (1) bid proposal by 4:00 p.m. on Wednesday, August 30, 2023.
3. All bids must be submitted in sealed envelopes and must be clearly marked on the outside of the envelope "Brush Truck Bid."

July 19, 2023

Tim Day, Deputy Fire Chief

O: 253-288-5804

tim.day@vrfa.org

INSTRUCTIONS TO BIDDERS
Brush Truck

Valley Regional Fire Authority “VRFA” is the entity issuing this invitation for bids. VRFA is a municipal corporation and a political subdivision of the state of Washington and is issuing this invitation for bids.

VRFA Information:

VRFA’s mailing address is: Valley Regional Fire Authority
 Station 31
 1101 D Street NE
 Auburn, WA 98002

VRFA’s Physical address is: Valley Regional Fire Authority
 Station 31
 1101 D Street NE
 Auburn, WA 98002

For further information contact Deputy Chief Tim Day at 253-266-2789 between the hours of 9:00 a.m. and 5:00 p.m. on all regular business days.

VRFA representative for all matters relating to this invitation for bids is: DC Tim Day.

1. **Definitions.** The following terms shall have the meaning set forth below when used in this instrument:
 - 1.1. **Bidder.** Any person or entity that submits a qualified bid in response to the invitation for bids by VRFA.
 - 1.2. **Qualified Bid.** Any bid submitted to VRFA in response to the invitation for bids issued by VRFA that complies with the bid requirements.
 - 1.3. **VRFA.** Valley Regional Fire Authority.
 - 1.4. **Supplier.** The bidder who is awarded the contract to supply the Apparatus described in the Apparatus Specifications issued by VRFA, whether referred to as successful bidder, vendor, contractor, or manufacturer in subsequent documents.
 - 1.5. **Acceptance.** The term acceptance shall mean that time at which VRFA indicates that the Apparatus, as received, substantially complies with the Apparatus Specifications.
 - 1.6. **Apparatus.** Brush Truck as more particularly described in the Apparatus Specifications.
 - 1.7. **Apparatus Specifications.** The specifications attached here to as **Exhibit C**.
2. **Invitation for Bids.** VRFA will accept bid proposals for the Apparatus as follows:

- 2.1. **Time.** Bid proposals must be received by VRFA on or before 4 p.m. on **August 30, 2023**
- 2.2. **Place.** Bid proposals may be mailed to VRFA mailing address or delivered to the station at the physical address.
- 2.3. **Bid Opening.** Bids will be opened at **9 a.m. on Thursday, August 31, 2023**, at the station located at the physical address and a decision to award bids will be made within 60 days of that date.
3. **Acceptance - Rejection of Bids.** VRFA reserves the right to reject any or all bids, to waive minor irregularities in any bids or in the bidding procedure, and to accept any bid presented which meets or exceeds these specifications and which VRFA deems to be in the best interest of VRFA. VRFA reserves the right to accept the bid from the lowest responsible bidder or the bidder providing the best value taking into consideration the interests of VRFA as a whole. This may or may not be the bid with the low bid price.
4. **Instruction to Bidders and Specifications.** The instructions to bidders and Apparatus Specifications may be obtained by contacting VRFA between the hours of 9:00 a.m. and 5:00 p.m. on all regular business days. Any questions regarding this specification must be submitted in writing and be received by VRFA Representative a minimum of five (5) business days prior to the bid opening date. Clarifications, corrections and/or changes shall be sent out in writing via fax or email to all prospective Bidders.
5. **Bid Marking.** All bids must be submitted in sealed envelopes and must be clearly marked on the outside of the envelope "Brush Truck Bid," the opening date, and time on the face of the envelope.
6. **Bid Submission.** A Bidder may, without prejudice to the Bidder, withdraw, modify, or correct a proposal after it has been deposited with VRFA, provided the request is filed with VRFA, in writing before the time set for opening the bid proposals. The original proposal, as modified by such writing, shall be considered as a proposal submitted by the Bidder.
7. **Contents of Bid Proposal.** All bid proposals shall contain or be accompanied by the following:
 - 7.1. **Proposal.** The bidder's detailed description of the apparatus and equipment which it proposes to furnish. Such description shall be set forth in the same sequence as set forth in these specifications. In the event any exceptions to the specifications are set forth in a bid proposal, the bidder must also include an explanation to establish why they believe the exceptions are equivalent to or exceed the specifications.
 - 7.2. **Qualification of Bidder.** Satisfactory evidence of the bidder's ability to construct the apparatus specified and a statement showing the location of the factory where the apparatus is to be manufactured. The bidder shall also state the number of years it has been building fire apparatus and its financial condition.

- 7.3. **Availability of Parts and Services.** A statement showing the length of time that parts and services will be available after delivery of the apparatus and where such parts and service will be available.
- 7.4. **Apparatus Blueprint.** An agreement that a blueprint of the apparatus shall be provided by the bidder and approved by VRFA before construction begins.
- 7.5. **Manuals and Diagrams.** An agreement that the bidder will supply to VRFA at the time of delivery of the apparatus, the following documents:
 - 7.5.1. At least two copies of complete operation and maintenance manuals covering the complete apparatus as delivered.
 - 7.5.2. At least two copies of complete electrical wiring diagrams covering the complete apparatus as delivered.
- 7.6. **Specification Compliance.** A yes or no answer to each of the items set forth in the specifications.
- 7.7. **Weight Balance and Distribution.** A provision that the apparatus will be designed and the equipment mounted with due consideration to the distribution of load between the front and rear axles so that all specified equipment and personnel will be carried without injury to the apparatus. Weight balance and distribution shall be in accordance with the recommendations of the International Association of Fire Chiefs and National Fire Protection Association or American Insurance Association.
- 7.8. **Authority.** The bid must be signed by an authorized representative of the Bidder. The Bidder shall provide with the bid proposal, proof of such representative's authority to contractually bind the Bidder.
- 7.9. **Price.** The total bid price exclusive of state and local sales or use tax.
- 7.10. **Payment Terms.** The bid proposal must state the time at which the purchase price or any portion of the price shall become due and shall provide options if any, for discounted payment plans.
- 7.11. **Delivery Date.** The Bidder shall provide in the bid proposal the amount of time in which the Apparatus will be delivered to VRFA. The delivery date shall be no later than **May 1, 2024**, subject only to labor strikes, acts of God or other delays not the fault of the Supplier. A provision that upon delivery of the completed apparatus to the Fire VRFA, VRFA shall have a period of ten (10) days after Delivery in which to inspect and test the apparatus prior to acceptance. Preference may be given to any Bidder that can supply the Apparatus prior to **April 1, 2024**.
- 7.12. **Contract Modifications.** Purchase contract shall be substantially based on VRFA's proposed contract form attached to these Instructions as Exhibit A. If bidder cannot comply with any of the proposed contract terms, Bidder shall specifically identify such terms and provide an explanation of bidder's inability to comply.

8. **Compliance.** VRFA advises all prospective Bidders that compliance with the requirements of these instructions to bidders as well as the Apparatus Specifications will be considered by VRFA in determining whether to accept or reject any bid.
9. **Material Considerations.** Each of the requirements contained in this document are material and the failure of a Bidder to comply with each requirement may constitute grounds for the rejection of the bid in the discretion of VRFA.
10. **Bidding Errors.** VRFA will not be liable for any errors in any Bidder proposal and Bidders will not be allowed to alter or modify bids after the Bid submittal deadline. VRFA reserves the right to correct or amend errors such as typing, transposition or other obvious errors, however, VRFA is not required to make such corrections or amendments. If a Bidder claims error and asks to be relieved of an award, the Bidder will be required to promptly present certified work sheets documenting the error. If VRFA upon review of the works sheets is convinced, in VRFA's sole discretion, that an honest, mathematically excusable error or omission of costs has been made, the Bidder, may be relieved of Bidder's bid. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control.
11. **Offer Irrevocable - Time Period.** All bid proposals shall be deemed to be offers to enter into a contract and shall be irrevocable for a period of sixty (60) days from the date of opening of the bids.
12. **Apparatus Specifications.** The Apparatus Specifications provided by VRFA are the minimum requirements. Any exceptions equivalent to or exceeding the Apparatus Specifications must be specifically identified and the cost adjustment related to any such exception shall be clearly identified.
13. **Contract Documents.** The contract shall be substantially in the form attached as **Exhibit A**. The contract shall specifically enumerate all documents that are included by reference, which shall include the following documents:
 - 13.1. The formal written agreement executed by each party.
 - 13.2. The instructions to bidders and Apparatus Specifications prepared by VRFA.
 - 13.3. The bid proposal submitted by the Bidder.
 - 13.4. All warranties covering the Apparatus.
 - 13.5. Performance bond, if applicable.
14. **Bidder Evaluation.** The Bidder shall complete the Bidder's Qualification Form attached as **Exhibit B**. The following elements shall be given consideration in the determination of whether a bidder is responsible (total 100 points):
 - 14.1. The price of the Apparatus. (50 points)
 - 14.2. Whether the bidder can perform the contract within the time specified. (25 Points)

- 14.3. The convenience and accessibility of Apparatus service locations. (5 points)
 - 14.4. The character, integrity, reputation, judgment, experience, and efficiency of the bidder; (5 points)
 - 14.5. The ability, capacity, and skill of the bidder to perform the contract or provide the service required; (5 points)
 - 14.6. The quality of performance of previous contracts or services; (5 points)
 - 14.7. The previous and existing compliance by the bidder with laws relating to the contract or services; and (5 points)
 - 14.8. Whether, within the three-year period immediately preceding the date of the bid solicitation, the bidder has been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW (disqualifying factor)
15. **Performance Bond.** Unless the purchase price is not due until after acceptance by VRFA, the Supplier shall provide to VRFA a 100% performance bond within 10 days after acceptance of the bid proposal and execution of the contract with the Supplier by VRFA. The bond must be issued by a bonding company acceptable to VRFA.
 16. **Delivery Location.** Delivery of the Apparatus shall be F.O.B 1101 D Street NE, Auburn, WA 98002 or such other location designated by VRFA or other municipal corporation purchasing of this bid.
 17. **Warranty.** If the manufacturer's warranty excludes warranties of any specific included components because such components are covered by the component manufacturer's warranty, the warranty of the component manufacturer shall be included with the bid proposal. Unless otherwise stated, the warranty of the manufacturer shall comply with the contract requirements and shall cover all components of the Apparatus including accessories.
 - 17.1. The warranty obligation shall include the following:
 - 17.1.1. All materials and required labor.
 - 17.1.2. All transportation and shipping costs for the Apparatus or any part of the Apparatus from VRFA headquarters station to the place of repair and return.
 - 17.1.3. The term of the warranty or warranties.
 - 17.1.4. A copy of the warranty must be included in the bid.
 18. **Statutes and Regulations.** The completed Apparatus must comply with all applicable federal statutes and regulations, applicable Washington statutes and regulations of the

Department of Labor and Industries and all other applicable state regulatory agencies. In the event the Apparatus Specifications cannot be complied with without violating such requirements, the Bidder shall so state.

19. **Patents.** The Supplier shall defend any and all suits and assume all liability for any claims against VRFA, or any of its officials, employees, and agents, for the use of any patented process, device or article forming a part of the Apparatus or any appliance to be furnished under the contract.
20. **Interlocal Bids.** Bids shall be subject to chapter 39.34 RCW, the Interlocal Cooperation Act, under which other governmental agencies may purchase through the bid proposal accepted by VRFA. VRFA accepts no responsibility for the performance of a purchasing contract by the successful bidder and VRFA accepts no responsibility for payment of the purchase price by any entity purchasing under this provision.
21. **Conflict of Interest.** Bidders must certify, by signing below, that no officer, agent, or employee of VRFA who has participated in the contract negotiations on the part of VRFA has a pecuniary interest in the bid proposal and that the proposal is made in good faith without fraud, collusion, or participation of any kind by any other bidder under the same call for bids and that the Bidder is submitting the bid in its own behalf and not as an undisclosed agent of any person or firm.

I declare under penalty of perjury of the laws of the State of Washington that the above is true and accurate.

**EXHIBIT A
CONTRACT FORM**

**AGREEMENT BETWEEN
Valley Regional Fire Authority
AND [REDACTED]
FOR THE PURCHASE OF [REDACTED]**

THIS AGREEMENT is made and entered into by Valley Regional Fire Authority, a Washington municipal corporation hereinafter "VRFA"; and _____ "Vendor."

In consideration of the payments, covenants, and agreements hereinafter mentioned, to be made or performed by the parties hereto, the parties covenant and agree to the following:

- 1. Term – Agreement.** The term "Agreement" as used herein, shall constitute this document entitled "Agreement between Valley Regional Fire Authority, and [REDACTED] for the Purchase of one new [REDACTED] and the following attachments which are incorporated by this reference:

Attachment A, entitled "Proposal," together with all specifications and drawings referenced in the Proposal.

Attachment B, entitled "Apparatus Specifications" as prepared by VRFA and completed by Vendor.

Attachment C, entitled "Instructions to Bidders" as prepared by VRFA.

- 2. Term – Apparatus.** This Agreement is for the purchase of [REDACTED] new [REDACTED] together with all described parts, systems and equipment that conforms to the terms of this Agreement "Apparatus".

- 3. Scope of Work**

- 3.1.** Vendor agrees to build and deliver to VRFA [REDACTED] () fully functional Apparatus that meets the specifications set forth in this Agreement and its various attachments.

- 3.2.** VRFA promises and agrees with Vendor to engage Vendor to provide the Apparatus as described in this Agreement and for Vendor to complete and finish the same according to the plans and specifications set forth in this Agreement and Attachments.

- 3.3.** The parties agree that the Apparatus will conform to all Federal Department of Transportation rules and regulations in effect at the time of signing of the Agreement, and with all National Fire Protection Association guidelines for Automotive Fire Apparatus as published at the time of signing of this Agreement.

- 4. Delivery and Risk of Loss**

4.1. Vendor agrees to deliver to VRFA _____ (____) fully functional Apparatus, free of defects, that conforms to the specifications set forth in this Agreement on or before _____, 20__ either for pickup at Vendor's construction location or F.O.B. _____ provided, the risk of loss for any defect or damage to the Apparatus shall remain with Vendor until the Apparatus is accepted by VRFA.

4.2. Vendor shall, at the request of VRFA, provide a representative to demonstrate the operation of the Apparatus and to train and instruct VRFA representatives regarding the operation of the Apparatus at the time of delivery.

5. **Time is of the Essence/Liquidated Damages**

5.1. VRFA and Vendor agree that time is of the essence in the performance of this Agreement.

5.2. Liquidated damages at a rate of \$100.00 per calendar day shall be assessed against Vendor for the late performance of any condition or term set forth in this Agreement. Vendor's delay in the performance of any term of this Agreement shall be excused if the cause of such delay is beyond the control of, and without the fault or negligence of, Vendor, including acts of god, acts of the public enemy, acts of a government entity, fires, floods, and earthquakes directly affecting Vendor.

6. **Payment.**

6.1. **To be based on VRFA's selection of Vendor Proposal**

6.2. On receipt of payment, Vendor shall cause all titled equipment being purchased to be titled in the name of VRFA free and clear of any third party interests or liens regardless of the equipment location. VRFA's ownership interest is intended as a security and shall not be construed as acceptance of the Apparatus.

7. **Inspection**

7.1. VRFA is entitled to inspect the Apparatus at the times and in the manner specified in the Bid Specifications.

7.2. VRFA representatives shall, at a minimum, be afforded twenty-four (24) hours of time to inspect the Apparatus during the inspection. Additional inspection time shall be afforded for the inspection of any item that is discovered by a VRFA representative to be defective. All deficiencies shall be corrected prior to the apparatus leaving the Vendor's facility.

7.3. There shall be a post-delivery final inspection conducted at VRFA's premises to ensure that the Apparatus conforms to the terms of this Agreement and passes all inspections and tests as required by VRFA or other laws or regulations prior to acceptance of the Apparatus. The initial post-delivery inspection and testing shall be completed within thirty (30) days of delivery of the Apparatus. In the event the Apparatus fails to meet the tests as required by

VRFA on first trials, second trials may be conducted by VRFA, at the sole option of VRFA, within thirty (30) days from the date of the first trials. Such trials shall be final and conclusive.

- 7.4. Vendor specifically agrees that its failure to afford VRFA the opportunity to inspect the Apparatus pursuant to the terms of this Agreement shall be sufficient cause, in and of itself, for the rejection of the Apparatus and a full refund of any prepaid purchase price.
- 7.5. Notwithstanding any right of inspection, Vendor shall notify VRFA of any known or discoverable defect in the Apparatus that exists on the date the Apparatus is delivered, or is later discovered by Vendor.
8. **Acceptance.** Acceptance of the Apparatus shall occur after the Apparatus passes post-delivery inspections and tests. Risk of loss for any defect or damage to the Apparatus shall remain with Vendor until the Apparatus is accepted. The fact that VRFA uses the Apparatus for the inspection and tests shall not constitute acceptance.
9. **Rejection.** VRFA reserves the right to inspect the Apparatus for any defects, irregularities, non-conformities, and defects in workmanship and appearance, and to reject a non-conforming or defective Apparatus. VRFA will notify Vendor of the rejection of the Apparatus in writing. VRFA will also provide Vendor with a written description of the reason(s) for rejection. VRFA will hold the Apparatus in its possession with reasonable care at Vendor's disposition for a time sufficient to permit Vendor to remove the Apparatus. If Vendor gives no instructions within a reasonable time after notification of the rejection, VRFA will store the Apparatus at Vendor's expense and such expense shall become a security interest in favor of VRFA. The parties understand that in the case of rejection, VRFA is not required to store the Apparatus in an enclosed area.

10. Cure

- 10.1. If VRFA has rejected the Apparatus for a defect or non-conformity, or the Apparatus has or develops a defect after acceptance of the Apparatus, Vendor shall have thirty (30) days to cure the defect; provided, Vendor provides VRFA written notice of Vendor's intent to cure the defect and assures VRFA that it is capable of curing such defect. VRFA shall notify Vendor in writing of its discovery of any defect within thirty (30) days of the actual discovery of the defect. The cure of the defect shall be at the sole expense of the Vendor, and Vendor shall cover all costs of such cure. In the event the cure requires that the Apparatus to be transported beyond the limits of the State of Washington, Vendor shall, in addition to covering all costs of such cure, pay to VRFA \$0.55 per mile that the Apparatus is driven to cover the wear and tear on the Apparatus.
- 10.2. Unless otherwise agreed to in a separate writing signed by the parties, Vendor shall have one opportunity to cure each defect for which it has been placed on notice or which Vendor discovers. Any agreement to cure defects of the Apparatus shall not constitute a settlement of claims brought pursuant to the terms of this Agreement.
- 10.3. If, at any time, Vendor discovers a defect in the Apparatus, Vendor shall, within two (2) days of discovery, notify VRFA of such defects in writing and shall promptly cure such defect, if Vendor so chooses, pursuant to this section.

11. Warranty

- 11.1.** Vendor warrants and guarantees that the Apparatus will be manufactured in accordance with the specifications set forth in the attachments to this Agreement. Vendor shall provide express warranties consistent with the requirements in the Bid Specifications.
- 11.2.** The implied warranties of merchantability and fitness for a particular purpose, as set forth in sections 62A.2-314 and -315 of the Revised Code of Washington, shall apply to the Apparatus. These implied warranties shall apply even though they may be disclaimed in an attachment to this Agreement or other documents supplied by the Vendor, such that this section shall prevail over such disclaimer, and such disclaimer shall not apply. The inspection of or failure to inspect the Apparatus shall not constitute a waiver or cancellation of the implied warranties.
- 11.3.** If the Apparatus or any component, unit, or subsystem is repaired, rebuilt, or replaced pursuant to this Agreement, such warranty work, component, unit, or subsystem shall have the remaining unexpired warranty of the Apparatus, the original component, unit or subsystem, or a warranty of six (6) months, whichever period is longer.
- 11.4.** Vendor shall provide all paperwork relating to warranty coverage of the Apparatus or their components to VRFA upon delivery of the Apparatus. In the event of any discrepancy or inconsistency between the paperwork and this Agreement, the provisions providing the greatest warranty protection to VRFA shall control.
- 11.5.** The warranty periods set forth in this Agreement shall not begin to run until the Apparatus is placed in-service by VRFA. VRFA will promptly notify Vendor of the date the Apparatus is placed in service and the mileage of the Apparatus when it is placed in-service. The warranty period set forth in this Agreement shall not run during any period in which the Apparatus is not functional due to a defect in the Apparatus so long as VRFA places Vendor on written notice of the defect.
- 11.6.** In the event a component manufacturer requires that the purchaser register its purchase with the manufacturer to make effective a component manufacturer's warranty, Vendor shall take all steps necessary to register such purchase with the component manufacturer. In the event Vendor fails to properly register VRFA's purchase with the component manufacturer, then Vendor shall assume the status of warrantor of such component as if such registration had occurred. VRFA's failure to discover any defect during any inspection or at any other time shall not constitute a waiver of the warranty applicable to such defect.

12. Performance Bond. Vendor shall provide and execute a performance bond for the full contract amount unless no payment is due until after Acceptance. This performance bond shall:

- 12.1.** Be signed by an approved surety (or sureties) that:
 - A. Is registered with the Washington State Insurance Commissioner, and

- B. Appears on the current authorized Insurance List for the State of Washington published by the Office of the Washington Insurance Commissioner.
- 12.2.** Be conditioned on and guarantee the faithful performance of the contract by Vendor within the prescribed time.
- 12.3.** Guarantee that the surety shall indemnify, defend, and protect VRFA against any claim of direct or indirect loss resulting from the failure:
- A. Of Vendor (or any of the employees, sub-contractors, volunteer sub-contractors of Vendor) to faithfully perform the contract, and
 - B. Of Vendor (or the sub-contractors) to pay all laborers, mechanics, sub-contractors, volunteers, material person, or any other person who provides supplies or provisions for carrying out the work.
- 12.4.** VRFA may require the surety companies on the Performance Bond to appear and qualify themselves. When VRFA deems the surety or sureties to be inadequate, it may, upon written demand, require Vendor to furnish additional surety to cover any remaining work. Until the added surety is furnished, payments on the contract will stop.
- 12.5.** The parties agree that no liability shall attach to VRFA by reason of entering into this Agreement except as expressly provided herein.
- 13. Non-Assignment.** Vendor shall not assign this Agreement nor any part thereof, nor any monies due or to become due thereunder, without the prior written approval of VRFA. Vendor shall not sublet any part of this Agreement without first having obtained the written consent of VRFA to do so. IN CASE SUCH CONSENT TO SUBLET ANY PART OF THIS AGREEMENT IS GIVEN BY VRFA, IT SHALL IN NO WAY RELEASE VENDOR FROM ANY RESPONSIBILITY UNDER THIS AGREEMENT, AND VENDOR SHALL BE HELD IN ALL RESPECTS ACCOUNTABLE AS IF NO CONSENT HAS BEEN GIVEN. VENDOR WILL BE REQUIRED TO GIVE PERSONAL ATTENTION TO THE WORK THAT IS SUBLET.
- 14. Indemnification.** Vendor shall defend, indemnify, and hold VRFA, it's officers, officials, employees, agents and volunteers harmless from injury and all claims, injuries, damages, losses, and suits including all legal costs and attorney fees arising out of or in connection with the performance of this Agreement except for injuries and damages resulting from the sole negligence of VRFA. VRFA's inspection or acceptance of the Apparatus when completed will not be grounds to avoid any of these covenants of indemnification. The provisions of this section shall survive the expiration or termination of this Agreement. VRFA shall: (1) promptly notify Vendor of any claim for which indemnification may be sought; (2) cooperate fully in the defense of such claim; and (3) permit Vendor to settle or compromise such claim on terms and conditions which, in good faith, it determines are appropriate.
- 15. Insurance.** The Vendor shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Vendor, its agents, representatives, employees or subcontractors. The Vendor's insurance must be primary, and any insurance or self-insurance

maintained by VRFA shall not contribute to it. If any part of this Contract is subcontracted, these insurance requirements also apply to all subcontractors.

16. Discrimination. In the hiring of employees for the performance of work under this Agreement or any sub-contract hereunder, Vendor, its sub-contractors, or any person acting on behalf of Vendor or its sub-contractor shall not, by reason of race, religion, color, sex, sexual orientation, national origin, or the presence of any sensory, mental, or physical disability, discriminate against any person who is qualified and available to perform the work to which the employment relates.

17. Severability. If any term, provision, condition, or other portion of this Agreement, or its application to any person is held to be inoperative, invalid, or void, than the same shall not affect any other term, provision, condition, or any other portion of this Agreement or its application to any person.

18. Cumulation of Remedies. All remedies available to either party for breach of this Agreement are cumulative and may be exercised concurrently or separately, and the exercise of any one remedy shall not be deemed an election of such remedy to the exclusion of other remedies.

19. Non-Waiver of Breach. No term or provision hereof shall be deemed waived and no breach consented to unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party, or waiver of, the breach of the other whether expressed or implied shall not constitute a continuing waiver of or consent to, nor excuse a different or subsequent breach. The failure of VRFA to enforce one portion of this Agreement shall not constitute a waiver, or excuse the breach, of another portion of this Agreement.

20. Authority. Each party has full power and authority to enter into and perform this Agreement, and the person signing this Agreement on behalf of each party has been properly authorized and empowered to enter into this Agreement. Each party further acknowledges that it has read this Agreement and understands and agrees to be bound by its terms.

21. Choice of Law/Attorney Fees and Costs.

21.1. This Agreement shall be exclusively governed and controlled by the laws of the State of Washington, including, but not limited to, the State's Uniform Commercial Code as contained in Chapter 62A.2 RCW. To the extent that this Agreement conflicts with the provisions of Chapter 62A.2 RCW, the terms of this Agreement shall control. Jurisdiction and venue for any action relating to this Agreement shall exclusively be in the Superior Court for Thurston County, Washington. In the event of litigation concerning the terms of or performance under this agreement, the prevailing party, in addition to costs, shall be entitled to reasonable attorney's fees as determined by the court.

22. Termination

22.1. This Agreement may be terminated in whole or in part:

22.2. By VRFA if Vendor fails to deliver a conforming Apparatus within thirty (30) days after the time for delivery specified in this Agreement or after thirty (30) days for a cure of any defect or

non-conformity. VRFA shall notify Vendor of the termination, the reasons thereof, and the effective date.

22.3. By the mutual written agreement of VRFA and Vendor. The Agreement to terminate shall include the conditions of termination, the effective date, and in the case of termination in part, the portion to be terminated.

22.4. After the effective date of termination, no charges incurred under this Agreement, or terminated portions thereof, are allowable.

23. Notice to Proceed. Vendor shall commence all work immediately upon execution of the Agreement and shall provide a performance bond, and a copy of an insurance policy(ies)\certificate(s).

24. Sales Tax. VRFA shall be responsible for paying Washington State Sales Tax on the contract amount at a rate that is current when and where the unit is purchased. Sales tax collected by Vendor will be subject to WAC 458-20-145, Special Rule No. I.

25. Ownership and Title. Upon acceptance of the Apparatus and payment by VRFA pursuant to this Agreement, ownership and title of the Apparatus shall pass to VRFA free and clear of any interest or lien.

26. Modification. This Agreement may only be amended or modified by the mutual written agreement of the parties. All amendments or modifications shall be signed by both parties and be attached to this Agreement.

27. Standard of Performance. All work to be performed by Vendor shall be performed in a workman-like manner in accordance with generally accepted professional practices in effect at the time such work is performed.

28. Notices. Any notices to be delivered shall be directed to the attention of the following:

NOTICES TO BE SENT TO: VENDOR: Attn: _____ (____) _____ (telephone) (____) _____ (facsimile)	NOTICES TO BE SENT TO: VRFA: Attn: _____ (____) _____ (telephone) (____) _____ (facsimile)
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29. Entire Agreement. This Agreement constitutes the entire agreement between VRFA and Vendor. With the exception of properly executed written modifications, representations, either written or oral, that do not conform to the "modification" section of this Agreement, shall not be considered part of this Agreement.

EXHIBIT B

STATEMENT OF QUALIFICATIONS

The undersigned certifies under penalty of perjury of the laws of the State of Washington that the information provided herein is true and sufficiently complete so as not to be misleading.

1. How many years has the Vehicle Manufacturer been in business as a Fire Apparatus and Emergency Vehicle manufacturer? _____

2. How many years has the Vehicle Manufacturer been in business under its present business name?

 - 2.1. Under what other or former names has the Vehicle Manufacturer operated?

3. How many years has the Vehicle Distributor, if different from the Manufacturer, been in business as a Fire Apparatus and Emergency Vehicle distributor? _____

4. How many years has the Vehicle Distributor been in business under its present business name?

 - 4.1. Under what other or former names has the Vehicle Distributor operated?

5. Claims and suits. (If the answer to any of the questions below is yes, please attach details.)

 - 5.1. Has your organization ever failed to complete any work awarded to it?
YES _____ **NO** _____

 - 5.2. Are there any liens, judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?
YES _____ **NO** _____

 - 5.3. Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years?
YES _____ **NO** _____

6. Bidder shall submit a list of between five (5) and ten (10) units delivered within the State of Washington in the past five (5) years which are currently in normal fire service use, having no defects causing the apparatus to give unsatisfactory service, attributable to workmanship, materials, or construction techniques.

Proposal Complies **YES** _____ **NO** _____

7. REFERENCES

7.1.1. List three names of municipalities in the State of Washington (i.e., fire VRFAs, cities, counties and other municipalities) for whom you have most recently (within the past 24 months) contracted work with:

7.1.2. Agency _____ Contact _____ Phone _____

7.1.3. Agency _____ Contact _____ Phone _____

7.1.4. Agency _____ Contact _____ Phone _____

7.2. Each Bidder shall provide satisfactory evidence of the manufacturer's ability to construct the unit and supply service, parts and technical assistance for the equipment proposed. Bidder shall state the location of the factory at which the complete apparatus shall be constructed.

Proposal Complies YES _____ NO _____

7.3. VRFA seeks proposals from qualified Bidder's offering complete service facilities, within a reasonable distance from VRFA. After delivery, support and service is of extreme importance to VRFA. Bidder shall include the location and capabilities of their local service center and personnel available. Service personnel must be available 24 hours per day, 7 days a week to provide emergency service or technical support as required by VRFA. Supplier's local facilities should include mobile service capability also, for "On Site" service of the apparatus.

Proposal Complies YES _____ NO _____

No exceptions will be allowed for any of the aforementioned instructions. Proposals not submitted in accordance with these instructions may be rejected.

**EXHIBIT C
APPARATUS SPECIFICATIONS**

	PROPOSAL COMPLIES	
	YES	NO
<p>VEHICLE WEIGHT RATING AND PAYLOAD VRFA is concerned about the curb weight, payload allowance, centers of gravity and weight distribution due to the equipment to be carried and the unique operating conditions encountered. The chassis manufacturer's published gross vehicle weight rating for the vehicle shall not be altered to comply with the payload requirements of this specification. As proof of compliance with these requirements, the successful bidder must provide upon delivery, a certified weight slip from an independent scale showing total curb weight; front, rear, left, and right-side weights. Vehicle must meet the intent of NFPA 1906 4.9 Vehicle Stability.</p> <p>QUALITY All material and equipment shall be new and unused. All threaded nut fasteners will be self-locking or have lock washers. Any original equipment manufacturer special design bolt (i.e., SAE Grade 8, flanged head, long-shoulder bolt) that is removed from the frame during fabrication shall be reinstalled or replaced by the same type and grade and properly torqued to manufactured specifications.</p> <p>All welds shall be free of slag, internal and external, and all exposed outer surface welds shall be ground smooth. All workmanship, welding, cutting fabrication, and assembly shall be of high quality and in conformance with good manufacturing practices. All welding shall be according to safe and AWS standards. Flame-cut edges will be ground and finished for a neat and uniform appearance.</p> <p>No welding or cutting will be permitted on the basic chassis without prior approval. All brackets, braces, fittings, and other attachments will be bolted to the frame or chassis.</p> <p>PRE-CONSTRUCTION CONFERENCE Valley Regional Fire Authority would initiate an in-person pre-construction conference with VRFA personnel prior to any work to be conducted. This will ensure both parties are on the same page as to design, construction, and expectations. This conference to be held in person at Valley Regional Fire Authority location.</p> <p>BIDDER PROVIDED CHASSIS Chassis to be a Dodge Ram 5500, provided by the Bidder. Chassis shall be current model year (chassis with build date no more than 6 months prior to bid opening).</p> <p>DODGE 5500 CHASSIS SPECIFICATIONS</p> <ul style="list-style-type: none"> • 6.7L I6 Cummins Turbo Diesel Engine • 6-Spd Auto Aisin AS69RC HD 		

- HD Vinyl 40/20/40 Split Bench Seat
- Black/Diesel Gray Interior
- Heavy Duty Front Suspension Group
- Convenience Group
- Voltage Monitoring Auto Idle Up Sys
- Transfer Case Skid Plate Shield
- Mopar Front & Rear Rubber Floor Mat
- Uconnect 5 Nav w 8.4" Display (USA)
- 115V, Aux Power Outlet,
- Park View Rear Back-up Camera
- 220 Amp Alternator
- Manual DPF Regen
- Power 2-Way Driver Lumbar Adjust

REAR SEAT DELETE AND STORAGE

- Ram 5500 Chassis are equipped with rear folding bench style seats. The bench seat shall be removed and replaced with the “30” section from a similar model RAM truck. This seat shall be sourced by builder and installed on the driver side rear of cab. The empty space on the “70” side of backseat shall be replaced with custom storage for equipment, utilizing the “Goose Gear” brand rear seat delete kits.
- Qty 3 Portable radio chargers mounted to back wall of storage area (Motorola 800 series) – chargers to be provided by department.
- Divider between seat and storage area shall be fabricated. Divider to have integrated cupholder and armrest.

CUSTOM CHASSIS PAINT

Bidder to have chassis painted by qualifies facility to match current VRFA fleet. Paint to be two-tone, black over red, separated per VRFA instructions and current look of fleet. Approximate paint brake to be along bottom of windows and hood panel gap.

- RED PAINT INFORMATION: PIERCE RED, #707
- BLACK PAINT INFORMATION: PIERCE BLACK. #101

Further paint instructions, information, and photos will be provided upon request.

FLATBED

8’ x 10’ 2” Dual Wheel Fully Aluminum Flatbed with Mesh Cab Guard to be installed on Chassis.

Flatbed shall include the following:

- Military grade 5052 Aluminum Plate Deck
- Cab Guard with Mesh insert

- Under body box mounts
- Fully welded 6" exterior frame rails
- Gussets welded from sills to cross members
- 3/16" 6061 Aluminum channel long sills
- 3/16" 6061 Aluminum cross members on 12" centers
- 3/16" Exterior channel frame
- Mud Flap Kit
- Tail Apron with full width step
- LED Marker, Stop, Tail and Turn Lighting
- 7 Pin Trailer Plug in rear apron
- Straight Rear Corners
- Fuel Fill Line Assy / Bezel
- Lifetime Transferable warranty

Flatbed shall be installed at the Body builder's facility to ensure proper fit and finish.

No exceptions to the items listed above will be allowed for flatbed, design, and installation.

Transport to and from the builder's facility to be the responsibility of the bidder.

CUSTOM HOSE BOX LOCATED AT REAR APRON

A full-length custom compartment shall be constructed between the frame rails of vehicle with access door on rear apron. Hose box to have full length dividers to allow for 2 sections of suction hose as well as long tool storage.

CUSTOM L1 COMPARTMENT

- Compartment dimensions 26H x 26D x 18W
- Smooth Aluminum material
- LED Compartment Lighting, both sides of door opening
- Gas Shock with integrated door open switch for lights, no exceptions
- Adjustable Shelf through center section only
- Powder coated
- D-Ring Handle
- Door Lock (keyed alike)
- Drip Rail with cover and top seal
- Vertically hinged swing door, hinged forward

CUSTOM R1 COMPARTMENT

- Compartment dimensions 26H x 70D x 18W
- Smooth Aluminum material
- LED Compartment Lighting, both sides of door opening.
- Gas Shock with integrated door open switch for lights, no exceptions

- Adjustable Shelf through center section only
- Powder coated
- D-Ring Handle
- Door Lock (keyed alike)
- Drip Rail with cover and top seal
- Vertically hinged swing door, hinged forward

CUSTOM T1 COMPARTMENT

- Compartment dimensions 10H x 96D x 18W
- Smooth Aluminum material
- LED Compartment Lighting, both sides of door opening.
- Gas Shock with integrated door open switch for lights, no exceptions
- Powder coated
- Thumb latches
- Door Lock (keyed alike)
- Top mounted door hinged to open upward

CUSTOM L2 / R2 COMPARTMENTS

- Compartment dimensions 36H x 18D x 62W each
- Smooth Aluminum material
- LED Compartment Lighting, both sides of door opening.
- Gas Shock with integrated door open switch for lights, no exceptions
- Adjustable Shelf through center section only
- Powder coated
- D-Ring Handle
- Door Lock (keyed alike)
- Drip Rail with cover and top seal
- Vertically hinged with double swing doors with a single latch – no center divider

CUSTOM L3/R3 UNDER BODY COMPARTMENTS (1 per side)

- Compartment dimensions 18H x 18D x 36L
- Smooth Aluminum material
- Powder coated
- D-Ring Handle
- Door Lock (keyed alike)
- Under body truck mounts
- Drip Rail with cover and top seal
- Hinged on lower edge of compartment, drop doors
- Heavy Duty cable stop on each door

COMPARTMENT JOB COLOR POWDER COATING

- Powder Coating will be provided by the body builder. Colors powder-coated red to be indistinguishable from chassis (PIERCE RED #707). Exact paint code to be supplied by VRFA to ensure match.

Powder coated items:

- All Compartment Box Doors (RED)
- All Compartment Box Shells (RED)
- Complete Flatbed Deck, Rails, and Apron (RED)
- All Rails (Black)
- All Baskets (Black)

COMPARTMENT AND BASKET OVERVIEW & INSTALLATION

- All Compartments, Doors, and Baskets shall be installed on the Flatbed per the specifications listed above.
- There shall be no exceptions allowed for the Flatbed, Compartments, Doors, Powder Coat or Storage Baskets allowed.
- Any use of “traditional” expanded metal sheet will not be allowed. Any and all perforated/mesh sheets shall be “HEX PUNCHED”, no exceptions.
- Failure to provide these specifications as requested will result in the bidder being rejected as non-responsive.

TURTLE TILE COMPARTMENT FLOORING

- There shall be Black Turtle Tile installed on all compartment floors and shelving.

REAR HITCH RECEIVER UNDER BODY

- There shall be a Class V 2.5” rear hitch receiver fastened directly to the rear chassis frame rails of the vehicle. There shall be a trailer plug wired to the chassis wiring system as well.

RUNNING BOARD STEPS

Full cab length running boards shall be installed – to be powder coated black. Steps to be “Nerf Bar” style. Shall be mounted in accordance with VRFAs ideal step height/safe entry and exit of vehicle.

EXPANDED METAL/DUNNAGE AREA

There shall be an expanded metal tool tray installed around the exterior circumference of the Compartments and Water Tank. The tray shall be approximately 8" deep to provide exposed storage for gear bags, hose, and tools.

- There shall be a grated metal walkway provided on the top tank surface.
- Top storage area will be accessed by a step / ladder from the through opening in the mesh tray.

<ul style="list-style-type: none"> • There shall be steps and a full height handrail provided to access the top portion of the water tank. <p>SUSPENSION LIFT / LEVEL KIT</p> <ul style="list-style-type: none"> • A lift / leveling kit shall be installed to the chassis to allow use and fitment of 35" tires. <p>35" TIRES</p> <ul style="list-style-type: none"> • Seven (7) 35" all-terrain tires shall be installed on factory steel wheels and replace stock tires provided with chassis. <p>BUCKSTOP FRONT BUMPER</p> <ul style="list-style-type: none"> • A Buckstop Brand Custom front bumper (FABRICATED FOR PRECISE FIT ON DODGE RAM 5500) to accommodate winch, headlight hoops, and vehicle protection shall be installed in place of factory bumper. <p>16,500 lb. WARN WINCH</p> <ul style="list-style-type: none"> • A Warn 16,500 lb. rated winch with synthetic rope shall be installed in the front bumper, with a heavy-duty roller / fairlead assembly. Winch control box to be mounted in safe easily accessible location for deployment of winch / connection of remote. Winch remote to have dedicated storage location inside of the cab. A Warn heavy duty winch accessory kit shall also be provided. <p>DARLEY FIRE PUMP SPECIFICATIONS</p> <ul style="list-style-type: none"> • The fire pump shall be a Darley Model 1.5 AGE 24k USFS Spec Hi Press Edition with the following configuration. • 3.17 RATIO, HIGH PRESSURE IMPELLER • 25 gpm (95 L/M) @ 375 psi (25.9 bar) • 75 gpm (284 L/M) @ 245 psi (16.9 bar) • 120 gpm (454 L/M) @ 150 psi (10.3 bar) • Engine: Kubota D902 Diesel: 24 HP, liquid cooled, 12 volt starter, 40 amp. alternator, fuel and oil pump filters. • Hard anodized aluminum alloy pump casing and discharge • Aluminum alloy gear case and engine adapter • Bronze impeller and wear rings • Stainless steel impeller shaft • Mechanical seal • Heat treated alloy steel helical gears • Ball bearing construction • Electronic throttle • Power indicator light • Digital pressure readout • Hour meter 		
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- Oil psi
- Tachometer
- Engine coolant temperature
- Voltmeter
- Overridable engine shutdowns
- 2" NPT suction
- Flange on Discharge Head 2.5" NPT
- Skid base (Mounting Rails)
- Dual Digitrols+ with integral pressure governor and loss of water protection.

The fire pump shall be equipped with an electric starting system, with battery supply from the chassis electrical system.

The pump shall be mounted in such a fashion as to accommodate ease of removal.

Drains shall be installed to permit pump and all apparatus body lines to be drained completely.

CHASSIS FUEL PROVISION

There shall be provisions made to allow Fire Pump to run on chassis fuel tank. Connections to chassis tank shall be made with Mopar Fuel Connections. No exceptions.

REMOTE OIL CHANGE

The Fire Pump shall be mounted to provide quick and easy oil change capability. The oil drain shall pass through to the bottom of the flat bed to provide an easy and effective way to drain the motor oil from the fire pump motor.

PRIMER

A Darley 12v Fluidless Electric Primer Shall be used. Primer Operation shall be controlled with a "push to prime" button at Main Panel or In Cab Panel. No exceptions.

PUMP PANEL

The main pump panel shall be in the fire pump and plumbing area on the driver's bedrail of deck. The pump panel shall be made of 1/8" steel, manufactured for custom fit of needed components. Panel shall be cut from solid sheet with waterjet. Panel shall be bent-formed with all seams fully TIG welded. Panel shall be Powdercoated Textured Black. No exceptions.

The panel shall contain the following:

- Light switch
- LED Panel light (9" FRC Sunstrip)
- Start and stop switch (No Key)
- Pressure gauge

- Engine controls
- LED water level gauge
- LED foam level gauge
- Pump operating instructions
- Low Pressure override switch (Kill switch)
- Foam System Controls
- Primer Controls
- Scene Light Switching
- Integral pressure governor and loss of water protection

IN CAB CONTROLS (DUAL CONTROLS)

An auxillary Pump Control Panel shall be installed in the cab of the apparatus and integrated seamlessly to the Havis center console. Control Panel shall allow operator to have same controls found in main panel and outlined above.

LED WATER LEVEL GAUGES

The following tank level gauges shall be installed according to the specifications below. No exceptions.

- FRC Tank vision Pro 400 LED Water Level Gauge shall be installed at rear pump panel.
- Miniature FRC Tank vision LED Water Level Gauge shall be installed at center console, in cab.
- Two (2) FRC Maxvision Water Level Gauges shall be installed on either side of apparatus– facing outwards. These gauges shall provide an additional level of safety to a firefighter at end of hose line away from truck to have visible indication of remaining water level.

All Level Gauges shall be programmed and calibrated to reflect each other.

LED FOAM LEVEL GAUGE

- One (1) LED Foam Level Gauge will be installed at the main pump panel.

TRIDENT FOAMATE ATP FOAM SYSTEM

Trident FOAMATE Foam controller to be mounted on Pump panel, no exceptions.

- All Brass Body Construction and Connections
- Maximum Pressure 600 PSI
- Includes Two Brass Wye Strainers
- GPM Flow Range up to 400 GPM

FOAMATE CONSTRUCTION

- Brass metering valve with EPDM rubber replaceable foam compatible seals
- Integral brass check valve to prevent ‘backflow’ of foam into the water supply
- Compact control panel, 4" high x 4" wide x 4" deep
- Valve body and metering valve mounted behind panel (when panel mounted)

- Chrome plated control panel, with integral polycarbonate label for operating instructions and foam diagram

All foam components to be clearly marked as to their operations and function. All foam system plumbing shall be flex tubing color coded "GREEN".

LED FOAM LEVEL GAUGE

There shall be an Akron 3462 Forestry Monitor installed on the front bumper of the apparatus.

FLATBED PERIMETER WORK AREA RAILS

There shall be grab rail/protection rails installed on the rear perimeter of the flat bed. This shall provide a hand hold or tie down point left open on the rear pump deck, and at the driver side deck pump panel area. Rail shall be 1.5" square aluminum tubing, built as a single piece and shall bolt onto deck surface.

REAR COMPARTMENT STORAGE STEP

There shall be a ladder/step fabricated over the rear plumbing. This will provide access to the top of the tank/dunnage area. There shall be a full-length rail provided next to the ladder to assist in top of tank access.

AKRON 3462 FORESTRY MONITOR (no exceptions)

- An Akron Style 3462 Forestry Monitor system shall be installed on front bumper of apparatus. Monitor & nozzle shall be visible from seated position in cab to increase effectiveness of deployment and operation.
- Plumbing under chassis from rear to front of apparatus shall be high-pressure flexible hose meant specifically for this operation. Hydraulic style hose and hydraulic style fittings will not be accepted. No exceptions.
- Plumbing from both flex hose to monitor shall be Stainless Steel. Monitor shall be mounted in protected and secure location. Monitor base shall have quick disconnect fitting for easy removal of monitor assembly to clean out debris.
- Forestry monitor shall be controlled by electric valve. No exceptions.
- Joystick style controller shall be mounted in the center console area on a Velcro base. The controller shall have enough cord slack to be removed from base and operated by either driver or officer during firefighting operations.
- Monitor plumbing shall have an auto drain between the electric valve and monitor.

UPF POLY WATER TANK SPECIFICATIONS

The tank shall have a capacity of approximately 400 U.S. gallons of Water and 10 gallons of Foam. The Tank shall be constructed of PT3 polypropylene material. This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from ½ to 1" as required. Internal baffles are generally 3/8" in thickness.

TANK ISO CERTIFICATION

The tank will be designed and fabricated by a tank manufacturer that is ISO 9001:2008 certified in each of its locations. The ISO certification must be to the current standard in effect at the time of the design and fabrication of the tank. No exceptions.

TANK CONSTRUCTION

The booster and/or foam tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments. Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity. The tank construction shall include Polypro Seal technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method will provide a liquid barrier offering leak protection in the event of a weld compromise. The top of the booster tank is fitted with removable lifting assembly designed to facilitate tank removal.

The transverse and longitudinal swash partitions shall be manufactured of a minimum of 3/8" PT3 polypropylene. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow.

All swash partitions interlock with one another and are completely fused to each other as well as to the walls of the tank. All partitions and spacing shall comply with NFPA 1901. The walls shall be welded to the floor of the tank providing maximum strength as part of the tank's unique Full Floor Design. Tolerances in design allow for a maximum variation of 1/8" on all dimensions. No exceptions.

FILL TOWERS AND COVERS

- The tank shall have a combination vent and manual fill water and foam towers. The fill tower shall be constructed of 1/2" PT3 polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter.
- The fill towers shall be Blue in color indicating that it is a water-only fill tower and Green in color for the foam fill tower.
- The water fill tower shall be located in the officer's side rear corner of the tank. The foam tower in the driver's rear corner of the tank. The towers shall have a 1/4" thick removable polypropylene screen and a PT3 polypropylene hinged cover.
- The capacity of the tanks shall be engraved on the top of the fill tower lids. Inside the fill tower there shall be a combination vent/overflow pipe.
- The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of 4" that is designed to run through the tank and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 to not interfere with rear tire traction.
- The tank cover shall be constructed of 1/2" thick PT3 polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary.

- The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity.
- Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart. These dowels shall extend through the covers and will assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowels shall accommodate the necessary lifting hardware.

Fill Towers to be located as follows:

- Water: Rear Officer corner of tank
- Foam: Rear Driver corner of tank

The fill towers shall be Blue in color indicating that it is a water-only fill tower and Green in color for the foam fill tower. No exceptions.

TANK OUTLETS

There will be three (3) standard tank outlets: one (1) for the tank-to-pump suction line, which shall be sized to provide adequate water flow to the pump, one (1) for tank fill line and one (1) for direct tank fill, which shall be sized according to the NFPA minimum size chart for booster tanks.

All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and be capable of withstanding sustained fill rates of up to 500 G.P.M. The addition of rear suction fittings, nurse valve fittings, dump valve fittings, and through-the-tank sleeves to accommodate rear discharge piping must be specified. All auxiliary outlets and inlets must meet all NFPA guidelines in effect at the time of manufacture.

TANK CAPACITY CERTIFICATION

All water and foam tanks shall be tested and certified as to capacity on a calibrated and certified tilting scale. Each tank shall be weighed empty and full to provide precise fluid capacity. Tank is to be delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight. Engineering estimates for capacity calculations shall not be permitted for capacity certification.

TANK CENTER OF GRAVITY

A center of gravity calculation shall be determined for each tank and provided as requested in order to provide the apparatus manufacturer with the necessary data to design and certify the apparatus with respect to the NFPA requirements regarding rollover stability.

This information may be used by the apparatus manufacturer to assist in the calculation of the apparatus's ability to meet the tilt table static rollover threshold or calculated Center of Gravity requirements per NFPA. A center of gravity and weight calculation for both empty and full conditions shall be required with each tank.

TANK DATA TAG

A tag shall be installed on the apparatus in a convenient location and contain pertinent information including a QR code readable by commercially available smart phones. The information contained on the tag shall include the capacity of the water and foam, the maximum fill and pressure rates, the serial number of the tank, the date of manufacture, the tank manufacturer, and contact information. The QR code will allow the user to connect with the tank manufacturer for additional information and assistance.

TANK REQUIREMENT – UPF TANK

In the best interest of VRFA as well as for fleet continuity, performance, and consistency, VRFA will only allow at Water Tank provided in this specification from UPF. Bidder will provide proof of UPF specifications and Warranty with their bid. Failure to provide this Tank and information will render the bidder as non-responsive and will be rejected. No exceptions.

LABELING

All Controls, Discharges, and Intakes will be labeled with high quality specific identification for each operation.

AKRON VALVES

All valves used in the plumbing installation shall be Heavy-Duty AKRON BRASS quarter turn full flow, rebuildable, ball valve type. All valves shall be labeled as to their use and/or operation. No Exceptions

All valves shall have stainless steel metal balls. No exceptions.

DEDICATED OVERBOARD 2.5" GATED SUCTION INLET

A 2.5" gated suction inlet will be provided to allow a draft from an open source of water while pumping a dedicated suction line.

2.5" TANK TO PUMP LINE

A 2.5" water tank to fire pump line shall be installed with a full flow quarter turn ball valve, 2.5" piping, and with flex hose and stainless-steel hose clamps. The valve control shall be accessible from the pump operation area.

An inlet wye shall be installed to trap debris.

PUMP COOLING LINE

A 3/8" pump cooling line shall be installed. Pump cooling line valve shall be located at the pump panel. Cooling line to be flex style tubing, color coded BLUE.

1" PUMP TO TANK FILL

A 1" fire pump to water tank refill shall be installed. The valve shall be a full flow quarter turn ball valve with 1" piping and flex hose to tank.

SEDIMENT FILTER

An inline sediment filter shall be installed on the suction side of the plumbing system. Sediment filter shall be mounted in location to allow for easy removal/clean out.

2.5" DIRECT TANK FILL LINE

A 2.5" direct tank fill line shall be installed at the rear of the Brush Truck for direct fill into the Water tank. A 2.5" NST female swivel fitting will be mounted at the rear of the truck with a quarter turn Akron valve.

TWO (2) 1-1/2" DISCHARGES

- One (1) 1.5" discharge shall be located at the left rear of the apparatus at a 45-degree angle.
- One (1) 1.5" discharge shall be located at the right rear of the apparatus at a 45-degree angle.
- The valves shall be a 1-1/2" quarter turn ball valve. The control handle mounted directly on the valve, clearly marked.

1" HOSE REEL DISCHARGE

A 1" discharge shall be installed and piped to the hose reel with flexible high-pressure hose. An Akron quarter turn ball valve shall be used to control, located directly at the hose reel.

HOSE REEL

- There shall be a Hannay electric rewind, painted booster reel. The reel capacity shall be 150' of 1" Booster Hose.
- Mounting location: Officer side Rear
- One (1) 100' x 1" sections of booster hose shall be provided (loaded onto Hose Reel)

HOSE ROLLERS

A standard spool style stainless steel roller assembly shall be installed for the hose reel on the rear facing side of the apparatus.

HOSE REEL ELECTRIC REWIND SWITCH

The electric rewind control shall be a weather-resistant enclosed momentary push button switch. The switch shall be located at the base of the hose reel for ease of operation when rewinding hose.

BOOSTER HOSE

One (1) 100'-foot length of 1" Booster Hose to be provided and installed on hose reel.

HOSE THREADS

The hose threads shall be National Standard (NST) on all base threads on the apparatus intakes and discharges, unless otherwise specified.

CHROME CAPS AND PLUGS

All discharge and intake end fittings to have chrome caps and / or plugs attached with chains.

STAINLESS STEEL PLUMBING – NO EXCEPTIONS

- The plumbing system shall be built of 100% stainless steel piping. Pipe connectors will be threaded or welded stainless steel. Victaulic type couplings between the plumbing and the fire pump will be utilized extensively. All valve handles shall be clearly labeled on valve operations.
- Tank connections, front discharges, and other circumstances where hard plumbing is not possible shall use high-pressure flexible hose or piping. Flexible hose couplings shall be threaded stainless steel, Victaulic, or Anodized Aluminum connections.
- All plumbing will be secured to the vehicle using heavy duty pipe clamps with pipe protection where needed.
- No black steel, iron pipe, or galvanized components shall be used under any circumstances prevent cross-contamination of stainless-steel components. No exceptions.

DRAINS FOR PLUMBING

- There shall be a master drain valve located on the rear of the apparatus on tail apron. This valve will allow all water to be drained from the plumbing.
- Drain system shall be tied to plumbing, fittings and connections.

FOAM DRAIN VALVE

- One (1) ½” drain valve for the Foam system will be provided at the rear of the apparatus.
- The valve shall be a ½” quarter turn ball valve. The control handle mounted directly on the valve, clearly marked. Plumbing for foam system drain to be flex style, color coded GREEN.

LED WORK/SCENE LIGHTS

- There shall be two (2) Whelen NP6BB Nano-Pioneer adjustable LED flood lights located on the top of the compartments / dunnage area, rearward facing to illuminate rear working area.
- Lights shall be wired to the Siren controller / center console as well as the Main Pump Panel for control from either position. Lights shall be also tied on to automatically illuminate with reverse gear.
- Reverse gear switch function shall be switched through vehicle OBDII port only. No exceptions.
- There shall be two (2) Whelen M4 Red / White DUO Warning Lights mounted on the front bumper in 4x6 cutouts.

- Independent of other programming and warning light functions, white function shall be switched in cab as “DITCH LIGHTS” and shall operate independently regardless of emergency warning light slide position, no exceptions.
- There shall be one 24” LED light bar installed on each side of the apparatus (2 total) as outlined below, no exceptions.
- 24” Light bars to be mounted to the top of the L2 and R2 compartments, centered.
- Scene Light Bars shall be single row/low profile style.
- Scene Light Bars shall be switched with “Alley Lights” in light bar to come on together as “Driver Scene” and “Officer Scene”.
- D/O Scene Functions shall also be switched from Main Pump Panel Area.

TWO (2) LED AMBER DRIVING / FOG LIGHTS

There shall be two (2) 6” Round Amber LED Driving Lights mounted in the front bumper in the two (2) round cutouts wired to the Siren head.

SWITCHES AND RELAYS

- All Front Scene and Driving Lights shall be wired only to the Siren Controller.
- Driver, Officer, and Rear Scene/Work Lights shall be wired to both the Siren Controller and the Main Pump Panel.
- Switches at panel shall be a backlit style rocker switch, covers to be etched with function of switch (Ex: “DRIVER SCENE”), with the universally recognized symbol or icon for function. Switch shall illuminate when on. No exceptions.

MASTER ELECTRIC SWITCH

A Master Battery switch shall be installed. Switch shall be a backlit style rocker switch, cover etched “Battery Disconnect” with the universally recognized power symbol. Switch shall illuminate when on. Switch shall control Solenoid(s) mounted under the apparatus to allow disconnection/connection off all aftermarket installed components.

RADIO(S)/ANTENNA(S)/AUX RADIO SPEAKER(S) INSTALLATION

- VRFA will provide radio(s) for installation as well as providing all antennas, cabling, and other related radio equipment. Components to be mounted on the apparatus. Builder shall supply and mount auxiliary speaker for radio on front of console. Builder shall also mount radio and PA mics in location near center of dash as specified by VRFA.
- VRFA will provide radio specifics and model information upon request.

HAVIS CENTER CONSOLE

A radio, siren control console and enclosure shall be installed to house cab mounted electrical switching devices and equipment.

The console shall be located between the driver's and the passenger's seat and shall extend from the dash to the back of the driver and passenger seats, any extra space in the console shall be available for enclosed storage and to VRFA's specifications.

Havis console shall match current design in use by VRFA. A 12-volt pre-wired fuse block for future use under/behind radio and siren control console will be installed inside the console.

The fuse block shall be wired constant "hot" at all times on shore power as well as standard operations when not connected to shore power.

- One (1) 30" L. Vehicle Specific 12.5" W. console, Includes all installation hardware, radio equipment brackets & filler plates.
- One (1) Face plate for Siren Controller
- Face plate for Mobile Radio(s)
- Two (2) Side mount armrest
- One (1) Accessory pocket w/Lid & Lock, 9.5" D.
- One (1) Adjustable Dual cup holder
- Two (2) Dual USB 2- 2.4 Amp charge ports
- Two (1) Map Book Storage Slot
- Insert for in-cab pump controls

Specifications specific to this shall be approved by Fire VRFA prior to console construction by manufacturer.

KUSSMAUL BATTERY CHARGER

A Kussmaul 091-266-12-40 Chief Series battery charger (no exceptions) shall be wired to the 12-volt battery system. The charger unit shall be mounted in a clean dry area and will be accessible for service and/or maintenance.

SHORE POWER AND AUTO EJECT

- One (1) Kussmaul model LPC 20A Auto Eject, w/ 63-11-3106 cover 120-volt "auto-eject" shore power receptacle shall be installed. The shore power plug shall "eject" when the engine is started. The receptacle shall be wired to specified electrical equipment. A female plug shall be shipped loose for use with shore power.
- Auto-eject location shall be driver side bed rail of Flatbed. Auto eject receptacle shall be Red in color, mounted vertically, and have graph indicator and volt / amp meter.

LED COMPARTMENT LIGHTING

- There shall be FRC Brand, SUNSTRIP model LED Lighting installed in all Compartments. Lighting shall be switched to the Door open switch integrated into the door open gas shock. No exceptions.

<ul style="list-style-type: none"> • Lighting shall be FRC Sunstrip type, sized accordingly to height of compartment. There shall be one Sunstrip on either side of the door opening / threshold: top to bottom. This style of compartment allows for complete illumination of compartment regardless of shelving locations or equipment stored in compartment and blocking light output. • Lights shall be mounted with clips to allow lights to be spun / positioned to needed angle for best illumination. <p>TEN (10) LED GROUND ILLUMINATION LIGHTS</p> <ul style="list-style-type: none"> • Ten (10) LED strip illumination lights shall be installed. One (1) light will be mounted to illuminate each cab door area, two (2) at rear end of apparatus centered. One (1) on each side of truck behind mudflaps on underside of deck. One (1) per side centered on bottom of underbody box. • Ground illumination shall conform to NFPA 1906 Standard for Wildland Fire Apparatus. Lights to be installed at the highest point possible for clearance and best location for longevity. Lights shall be switched to come on automatically when doors are opened, as well as switched in the cab to turn all ground illumination lights on regardless of whether a cab door is opened. <p>STEP LIGHTS / TOPSIDE LIGHTS</p> <ul style="list-style-type: none"> • LED strip lighting shall be installed to illuminate all step locations and walkway areas, as well as any storage area on top off apparatus (dunnage). • Lights shall be FRC Sunstrip Type, sized for best fit. • Lights shall be shielded with aluminum shrouds against damage, powder coated textured black for longevity. <p>BACK-UP ALARM An automatic electric back-up alarm shall be wired to the back-up light circuit and mounted under the rear of the apparatus body.</p> <p>BACK UP CAMERA Install Chassis-provided back up camera to rear of body.</p> <p>ELECTRICAL SYSTEM – NO EXCEPTIONS The following specifications describe the low voltage electrical system on the specified brush truck type fire apparatus. The electrical system shall include all panels, electrical components, switches, relays, wiring harnesses and other electrical components.</p> <ul style="list-style-type: none"> • All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. • Voltage drops in all wiring from the power source to the device shall not exceed 10 percent. 		
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<ul style="list-style-type: none"> • The wiring and wiring harness and insulation shall be in conformance with applicable SAE and NFPA standards. • The wiring harness shall conform to SAE J-1128 with GXL temperature properties. • All exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. • The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction. • The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels. • The wiring between the cab and body shall be split using weatherproof quick disconnect connectors. This system will permit body removal with minimal impact on the apparatus electrical system. • All connections shall be crimp-type with heat shrink tubing with insulated shanks to resist moisture and foreign debris such as grease and road grime. • Weather-resistant connectors shall be installed throughout to ensure the integrity of the electrical system. • Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required. • There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel. The wiring shall be secured in place and protected against heat, liquid contaminants, and damage. • The electrical circuits shall be installed with low voltage over current protective devices. Such devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. • The system shall have electro-magnetic interference suppression provided as required in applicable SAE standards. 		
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The electrical system shall include the following:

- a. Electrical terminals in weather exposed areas shall have non-conductive grease or spray applied. A corrosion preventative compound shall be applicable to all terminal plugs located outside of the cab or body.
- b. The electrical wiring shall be harnessed or be placed in a protective loom.
- c. Heat shrink material and sealed connectors shall be used to protect exposed connections.
- d. Holes made in the roof shall be caulked with silicone. Large fender washers shall be used when fastening equipment to the underside of the cab roof.
- e. Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it.
- f. Coil of wire or "service loop" must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.
- g. All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.
- h. Weather tight (IP68) plugs shall be used wherever possible for ease of service. Acceptable plugs include the following:
 - Weather-pack Connector
 - Molex "Sureseal" Connector
 - Farnell Connector
 - Mouser Connector
 - Deutsch Connector
 - All emergency warning lights and sirens shall be switched at siren control head.
 - Due to specified requirement by VRFA, there will not be any exceptions allowed to any of the Electrical system and / or components used.

WHELEN CENCOM CORE SYSTEM

- Whelen Cencom technology shall be used throughout the electrical system of the apparatus. No exceptions.
- The C399 Cencom Core shall act as the siren controller and programming device, as well as communicate with the vehicle through the OBDII port for chassis functions.
- Whelen Cencom Expansion Modules Shall be used throughout the apparatus to allow all installed components in range of each other to be tied to central block. Expansion Modules shall communicate to main Cencom Core VIA CAN-BUS type wiring harnesses.

A C399, CenCom CORE WCX Siren Amp & Light controller shall be installed under the rear seat, with the controller installed in the Havis Console to control

emergency lighting / siren and other functions. Controller shall include the following:

- CCTL7, 21 Button & 3- position slide switch
- CC5K5, OBDII CANPort™ cable installation kit for Ram 5500

WHELEN 54" CENATOR LED LIGHTBAR

A 54" Whelen CENATOR LED Light bar shall be installed on the cab roof to include:

- Four (4) Forward Red LEDs
- Two (2) White Forward LED Take Downs – Flashing
- Four (4) Corner Red LEDs
- Two (2) White Side Facing Alley LED
- Two (2) Rear facing Red LEDs
- Two (2) Rear facing Amber LEDs
- Pre-Emption Traffic Light Emitter / Opticom (Strobe Style)
- Mounting bracket

WARNING LED LIGHTING

LED Warning Lights shall be installed as outlined below. All Warning Lights shall be installed with rubber gaskets / boots. All Warning Lights shall have Chrome Flanges VRFA to outline programming of lights to successful bidder during manufacturing process.

WHELEN ION T SERIES FRONT LED WARNING LIGHTS

- Two (2) Whelen Ion T Series (RED) LED lights shall be installed, and flash pattern programmed per department.
- Lens color shall be: Clear.
- Location shall be: two (2) on the front of the apparatus, on grill: either side of RAM emblem.

WHELEN M4 DUO FRONT LED WARNING LIGHTS

- Two (2) Whelen M4 Duo (Red / White) LED lights shall be installed, and flash pattern programmed per department.
- Lens color shall be: Clear.
- Location shall be: one (1) on each front corner of the apparatus, in 4x6 Buckstop bumper cutouts.

WHELEN M2RC SIDE LED WARNING LIGHTS

- Four (4) Whelen M2RC (RED) LED lights shall be installed, and flash pattern programmed per department.
- Lens color shall be: Clear.
- Location shall be on both sides, as follows: Front Intersection (Front Fender over wheel), and Midship (Bed Rail over rear wheel)

WHELEN M2 DUO REAR LED WARNING LIGHTS

- Four (4) Whelen M2 Duo (RED / AMBER) LED lights shall be installed, and flash pattern programmed per department.
- Lens color shall be: Clear.
- Location shall be on rear of apparatus, as follows: 2 REAR LOWER, 2 REAR UPPER.

EMERGENCY LIGHTING SWITCHES

All Emergency Lighting switches shall be wired and integrated to the Whelen Cencom Core.

SIREN SPEAKER

Whelen SA315P Siren speaker shall be mounted in the front bumper area.

ON-BOARD AIR COMPRESSOR SYSTEM

- There shall a "VLAIR 10005 HEAVY DUTY" on board air compressor system installed in an appropriate location determined by the successful builder. The primary use of system will be to blow out saws and equipment.
- The air compressor system shall contain an airline connection at bed rail (Final location TBD), and coil style 15' airline w/ nozzle to be plugged into port to blow out equipment as needed.

REAR LICENSE PLATE MOUNT WITH LIGHT

There shall be a license plate mount with light supplied at the rear of the apparatus.

WHEEL CHOCKS

Two (2) Wheel Chocks with mounts will be mounted under the body on the Driver side rear of body.

L2 COMPARTMENT CUSTOM ADAPTER STORAGE

- An adapter storage cabinet organizer shall be built and installed in the L2 compartment to allow organization of department adapters, wyes, nozzles, and other suppression equipment.
- Organizer shall be approx. 16" H, 12" D, and 40" W. Organizer shall be in the style of a grid and have 8 openings, w/ 1" lips on face to prevent equipment from sliding out.

EQUIPMENT

The following equipment shall be provided and installed on the apparatus:

- Hydrant Wrench and Spanner Wrench (2) Set w/ Bracket
- Drip Torch
- Qty 4 1.5" Female NH x ¼ Turn Quick Connect Adapters

Final mounting locations to be determined by VRFA.

OVERALL HEIGHT, WEIGHT & SEATING DATA PLAQUE

The cab dash area shall have a highly visible plaque indicating the maximum overall height, gross weight, and seating capacity of the vehicle.

"NO RIDE" LABEL

A "NO RIDE" label shall be located on the vehicle at the rear step area or other applicable areas. The label shall warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

PERSONNEL PAYLOAD CAPACITY – 3

A label shall be installed in cab to denote that Three (3) personnel may be carried. For engineering purposes, an allowance of 750 lbs. shall be provided for personnel per NFPA 1906.

FLUID DATA PLAQUE

A fluid data plaque containing required information shall be provided based on the applicable components for this apparatus, meeting all current NFPA Standards as follows:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Drive axle lubrication fluid
- Power steering fluid
- Pump transmission lubrication fluid
- Other NFPA applicable fluid levels or data as required

Location shall be in the driver's compartment or on driver's door (interior)

DECALS / STRIPING / LETTERING

Decals, Vinyl Wrap, Striping, and Lettering shall be applied to match other VRFA Apparatus. Scheme as follows:

- VRFA will provide photos and further details of striping / decal text and placement upon request.
- VRFA logo on both front doors of cab
- "VRFA" on Sides of body Compartments (L2 / R2). Gold Leaf, Black Outline, Red Shadow.
- "Serving Community" inside of stripe on L2 and R2. 1" Gold Leaf.
- "UNIT IDENTIFIER" on cab roof in white reflective. VRFA to provide unit number upon request.
- "WWW.VRFA.ORG" on Bed rail, rear corners. Gold Leaf, sized to fit.
- Reflective Black 6" Stripe w/ 1" Space and 1" Tracer (TOP + BOTTOM) along bottom of cab, checked up in rear cab doors and carried to the end of L2 and R2 in bottom third of compartment.

<ul style="list-style-type: none"> • RED / LIME Chevron Style Striping on rear apron, bed rail, back of compartments, etc. All rear facing flat surfaces to be chevroned. <p>TRANSPORTATION</p> <ul style="list-style-type: none"> • Bidder is responsible for transportation from the Dodge dealer • Bidder is responsible for shipment to / from all sub contactors • Final inspection, Acceptance and Delivery shall be at the bidder's location <p style="text-align: center;"><i>END OF SPECIFICATIONS</i></p>		
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