

**OGDEN CITY CORPORATION
REQUEST FOR BID**

**Self-Contained Bed/Pump/Tank/Hoses/ Skid Unit
Installed on a Supplier supplied cab & chassis
2018 Ford F-550 XL, Extended Cab, 4x4, 6.7L Diesel Engine with 60" CA**

I. INTENT OF SOLICITATION

It is the intent of these specifications to set forth the minimum acceptable requirements for the purchase of one (1) new **Self-Contained Bed/ Pump/Tank/Hoses/ Skid Unit** and associated equipment, as described herein. Units that have been used for demonstration purposes shall be considered.

II. WRITTEN AGREEMENT

Bid award shall be by written purchase order and upon receipt of the written purchase order the selected bidder shall be obligated to comply with all terms, conditions, and provisions set forth in this solicitation.

III. BID AWARD

Bidders are advised that award of an order from this bid shall be made to the lowest responsible and responsive bidder. The City reserves the right to reject any or all bids submitted in response to this solicitation, to waive any informality or technicality, or to accept bids deemed in the best interest of the City.

IV. SUBMISSION OF BIDS

Submission Deadline: **3PM, June 14, 2018. Bids received after the deadline will not be considered.**

- Submit an original bid to the address listed below. Submission shall be in a sealed envelope or other sealed container. Mark envelope or container with the RFP Name and submission deadline date.
- To request a confidential bid, a request for business confidentiality must be submitted to the Ogden City Recorder at the time of bid submission.

Use this address for all U.S. Postal Service, express courier or hand delivery, use:

Ogden City Corporation
Purchasing Agent
Purchasing Division
2549 Washington Blvd, Suite 510
Ogden, Utah 84401

V. CONTENT OF BID

All bids submitted must include at least the following information:

- A. Exhibits “A”, “B”, “C”, “D”, and “E”.**
- B. Warranty information as specified in Paragraph IX.**
- C. Complete specifications and descriptive literature for the product offered as specified in Paragraph X.**
- D. Any other supplemental information.**

BIDS RECEIVED THAT DO NOT CONTAIN THE ABOVE ITEMS MAY BE REJECTED.

PURSUANT TO REQUIREMENTS OF “UTAH MUNICIPAL OFFICERS AND EMPLOYEES’ ETHICS ACT,” PLEASE DO NOT SUBMIT ANY GIFTS OR PROMOTIONAL ITEMS WITH YOUR BID.

VI. SUBMISSION DEEMED AGREEMENT

Submission of a bid or other offer or submission constitutes the bidder's agreement to all of the terms, conditions and provisions of the bid package, or other solicitation documents. By the submission of any bid or other offer or submission, the bidder represents that the matters stated therein are true and correct.

VII. EXCEPTIONS

If a bidder takes exception to any term, condition, or requirement set forth in this Request for Bid and any of its exhibits and attachments, said exceptions must be clearly identified and included in the response to this Request for Bid.

Exceptions or deviations to any of the terms and conditions must not be added to the bid pages but must be submitted in a separate document accompanying the bid response and identified as “Exceptions”. Should the City omit anything from this bid request which is necessary to a clear understanding of the work, or should it appear that various instructions are in conflict, then the bidder shall secure written instructions from the Purchasing Division at least forty eight (48) hours prior to the time and date of the bid opening shown in Paragraph IV above.

VIII. NOTICE TO BIDDERS

The City may not consider bids from individuals, contractors, firms, or corporations included in the following categories:

- A. Any organization or individual currently in arrears or in default to the City on a previous debt or contract.**
- B. Any organization or individual currently in default as surety, or otherwise, for any obligation to the City.**
- C. Any organization or individual who has previously failed to faithfully perform a contract with the City.**

IX. LOCAL WARRANTY SERVICE AND PARTS AVAILABILITY

Bids must be accompanied by a copy of the actual equipment warranty and a statement indicating the local sources for warranty service, repair and parts. **Local warranty service, repair and parts shall respond to the City's needs within twenty-four (24) hours of contact from City representative, either by having a service technician respond to the location of the equipment or the facility shall be able to work on the equipment at their location. Failure to comply with this requirement may result in rejection of your bid.**

X. COMPLETE SPECIFICATIONS AND LITERATURE

In the event that it is necessary for comparative purposes, complete specifications, detailed engineered drawings, and descriptive literature for the equipment offered in response to this solicitation shall accompany the bid. Failure to comply with this requirement may result in rejection of your bid.

XI. SPECIFICATIONS DESCRIPTIVE AND NON-RESTRICTIVE

These specifications are intended to be descriptive and non-restrictive. The "**Minimum Requirements**" listed in Exhibit "B" is intended to identify the features to be most important to the department, in order to meet the design and performance expectations for the equipment specified. Bidders shall be expected to provide all minimum requirements as they are specified. However, the City shall reserve the right to consider alternatives which in the City's opinion do not compromise the ability of the equipment to meet design and performance expectations. The City shall be the sole judge in these matters and shall have the right to require an on-site equipment demonstration, at the City's discretion.

Note: As you fill out the attached Exhibit "B", if you have to mark any items in the "NO" column for items listed as "MINIMUM REQUIREMENT" your bid would be considered non-responsive and may not be considered for award; therefore, it is important that you request changes prior to the date in Paragraph XVI, in order to have your bid considered responsive.

XII. DELIVERY AN IMPORTANT FACTOR

The equipment specified herein is of key importance to the City's operations and availability shall be an important factor in determining award of this bid. Therefore, all bidders must state a guaranteed delivery date for the equipment offered, and the City reserves the right to award to the bidder offering the earliest delivery, if such action is determined to be in the best interest of the City.

XIII. ACCEPTANCE

The City shall be allowed a minimum of seven (7) days following delivery of the equipment specified to inspect said equipment and either accept or reject the same. The City reserves the right to reject any equipment delivered, or any part of said equipment, if said equipment or part thereof fails to conform in every

respect to the equipment specifications set forth in this solicitation. The City reserves the option to cancel any accepted bid, in its entirety, due to non-conformance on the part of the vendor and to accept the next lowest responsive bid.

XIV. INDEMNITY

Bidder shall indemnify, save harmless, and defend the City, its officers and employees, from and against all losses, claims, demands, actions, damages, costs, charges, and causes of action of every kind or character, including attorney's fees, arising out of bidder intentionally wrongful, reckless, or negligent performance hereunder. If the City's tender of defense, based upon this indemnity provision, is rejected by bidder, and bidder is later found by a court of competent jurisdiction to have been required to indemnify the City, then in addition to any other remedies the City may have, bidder shall pay the City's reasonable costs, expenses, and attorney's fees incurred in proving such indemnification, defending itself, or enforcing this provision. Nothing herein shall be construed to require bidder to indemnify the indemnity against the indemnities' own negligence.

XV. GOVERNING CODE AND RULES

The City's procurement processes, including this competitive solicitation, are governed by Ogden City Code and Ogden City Administrative Rules for Procurement available through Sterling Codifiers - http://www.sterlingcodifiers.com/codebook/index.php?book_id=515

XVI. ADDITIONAL INFORMATION

The City's **designated contact person** for questions or additional information concerning the services specified in this Request for Bid, or for additional information concerning Request for Bid procedures and regulations (i.e., submission deadline, forms required, etc.), or Americans with Disabilities (ADA) accommodations, is **Ruby Kakita** in the Purchasing Division: telephone (801-629-8742); email (purchasing@ogdencity.com).

All questions requesting clarification or interpretation of any section or sections of this specification shall be submitted to Purchasing **no later than 10AM on June 7, 2018**.

Questions received after the date above may not be considered or received as a written response. If questions prompt the need for changes to the specification, the City shall issue a written addendum to the original specification within 48 hours of the deadline. The Q&A information will be published on the City website within the Bid Opportunities page as an Addendum to the Brush Truck RFB document.

XVII. MANUFACTURER QUALIFICATIONS

Manufacturer guarantees that all essential parts for proper maintenance of the equipment being offered are available at the present time and shall continue to be available. During the warranty period, manufacturer guarantees delivery of replacement parts within five (5) working days after receipt of order, or less. Manufacturer agrees to provide factory-trained personnel, within a reasonable amount of time to assist with technical service problems.

BID NAME: _____

EXHIBIT "A"
BID COVER SHEET
Self-Contained Bed/Pump/Tank/Hoses /Skid Unit
Installed on a Supplier supplied cab & chassis
2018 Ford F-550 XL, Extended Cab, 4x4, 6.7L Diesel Engine with 60" CA

COMPANY NAME

ADDRESS

CONTACT NAME, PHONE, AND EMAIL

Print and Sign Name

EQUIPMENT PRICE

Price stated includes all costs associated with the performance of the services specified, including: equipment, materials, freight, supervision, labor, training, insurance, transportation, delivery, off-loading, fuel or other surcharges, to Ogden City Fleet and delivering completed unit F.O.B. Ogden, Utah. No other charges shall be allowed.

Fleet Address: 175 W 29th Street, Ogden City, Utah 84401

Contact Person: Trent Nelson

Phone: 801-629-8341

Apparatus Cost \$ _____

Build Time _____

BID NAME: _____

EXHIBIT "B"
TECHNICAL SPECIFICATIONS
Self-Contained Bed/Pump/Tank/Hoses/ Skid Unit
Installed on a Supplier supplied cab & chassis
2018 Ford F-550 XL, Extended Cab, 4x4, 6.7L Diesel Engine with 60" CA

NOTICE TO BIDDERS: Any bidder who willfully falsifies responses indicating compliance or non-compliance with the minimum requirements listed below shall be subject to suspension and/or debarment from bidding.

Each item below shall have a yes or no response in the appropriate column. For all "NO" responses, attach a separate sheet with full explanation of the "NO" response including a description of the alternate to be supplied. The City reserves the right to determine if alternates are to be considered as approved equals.

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>CHASSIS</p> <ul style="list-style-type: none"> ❖ 2018/2019 Ford F-550 Chassis XL ❖ Color to be Race Red ❖ Extended Cab ❖ High Back Seats (Driver / Officer) ❖ 4X4 – Electronic Shift On The Fly (ESOF) ❖ 60" Cab To Axle ❖ 6.7L Diesel Engine ❖ Dual Alternators 337A ❖ Dual 12-Volt 750-CCA Batteries ❖ Ambulance Prep Package ❖ Automatic Transmission ❖ LT225 BSW 19.5" All Traction Tires ❖ 19,500 GVWR ❖ 4.88 Limited Slip Rear Axle ❖ 40-Gallon Aft-Axle Gas Tank ❖ AM / FM Stereo ❖ Power Telescoping Trailer Tow Mirrors ❖ Heated Mirrors ❖ Electric Mirrors ❖ Electric Door Locks ❖ Skid Plates ❖ Rear View Camera 		
	<p>SINGLE TIRE CONVERSION PACKAGE There shall be a single tire conversion package installed on the chassis.</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>The package shall include: Five (5) Continental MPT 335/80R20 Tires Five (5) Forged Aluminum Two Piece Wheels With Bead Lockers One (1) 2.5" Suspension Lift Kit Four (4) Custom Replacement Performance Shocks. Two (2) Custom Front Replacement Fenders, painted chassis color. The front and rear differentials shall have the gears replaced so the chassis performs to stock factory performance. The speedometer shall be recalibrated to correct performance.</p> <p>NERF BARS There shall be one pair of polished stainless steel nerf bars installed on the chassis or Ford factory installed running boards.</p>		
1	<p>Chassis Electrical: The apparatus chassis shall be equipped with a heavy-duty 12 volt direct current (VDC) negative ground electrical system. The electrical system shall include all parts, components, switches, relays, wiring, and other devices required to assure complete, consistent and proper operation of the completed apparatus. Wiring shall be routed and/or protected to eliminate exposure to moving parts or debris. All lights required are to comply with DOT and NFPA Codes for vehicles of this size and design shall be provided and installed. If required, these lights shall include headlamps and front turn signals with hazard switch, cab marker and clearance/license lights, back up lights and stop-turn-tail lights. All switches for the warning lights and other electrical equipment shall be mounted on a separate switch panel located in the cab on a master electrical console mounted between the two front seats. The switches shall be functionally laid out, properly identified, and shall be located within easy reach of both the driver and the officer. The warning light system shall have a "master" switch, which shall allow for the pre-selection of all warning lights. All switches shall be of a heavy duty design. The following additional electrical equipment shall be installed on, and modifications performed to, the specified cab and chassis by the apparatus builder:</p>		
1a	<p>BATTERY MASTER SWITCH One (1) battery cutoff switch shall be provided in the cab. The switch shall be a Cole Hersee brand, Model #M-2484-16, with Model #82065 switch plate "Off/On" label, or equivalent. The switch shall be rated for 125 amps continuous duty and 80 amps intermittent duty. The switch</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	shall be located on the floorboard to the left side of the driver's seat and placed as far aft as possible to prevent accidental actuation.		
1b	<p>BATTERY ON INDICATOR LIGHT</p> <p>One (1) "Battery On" indicator light, with a green lens, shall be provided on the center console, located forward on the left side. This light shall illuminate when the battery switch is turned to the "ON" position.</p>		
1c	<p>JUNCTION BOXES</p> <p>One circuit board control panel shall be located under the rear seat on the passenger side. All connection points shall be labeled according to function. A full electrical wiring diagram shall be supplied at time of bid.</p>		
1d	<p>BULKHEAD CONNECTIONS</p> <p>All apparatus body wiring either entering or exiting the cab shall be in a harness configuration and pass through a centralized location as close to the interior electrical junction box as possible. The harness(s) shall terminate at the point of the cab entry/exit with a Deutz bulkhead connector(s) or equivalent, designed to facilitate in the separation of the cab/chassis/apparatus body.</p>		
1e	<p>UNDERBODY LIGHTING</p> <p>The underbody lighting shall be wired to a switch located in the cab center console. The underbody lighting shall be activated by a switch on siren controller.</p> <p>One (1) 6" clear oval LED light shall be provided under each cab door. Two (2) 6" clear oval LED lights shall be provided under the apparatus front bumper.</p> <p>Four (4) 6" clear oval LED lights shall be provided under the apparatus body, one (1) one under each corner. The lights shall be housed within an enclosure sufficient to protect from damage.</p>		
1f	<p>BACK UP ALARM</p> <p>One (1) solid state back up alarm shall be provided at the rear of the apparatus protected from impact and debris. The backup alarm shall be wired to the reverse circuit of the transmission, and shall provide an audible alarm to the rear of the apparatus when reverse gear is selected. The alarm shall have a volume of 87 to 112 DBA while in operation.</p>		
1g	<p>MAP LIGHT</p> <p>One (1) flexible goose neck LED map light shall be provided on the officer's side of the cab center console. The switch for the map light shall be located on the light and shall include a diffuser to prevent glare at night.</p>		
	Blank		
2	EMERGENCY EQUIPMENT:		
	Blank		

Item No.	MINIMUM REQUIREMENT	YES	NO
2b	<p>PRE-WIRE AND INSTALL EMEGENCY RADIO The chassis cab interior shall be wired with battery power; battery ground, switched power, and radio rebroadcast wires to the siren or PA, and labeled to simplify USFS radio installation. The radio shall occupy the second forward, angled, position in the cab center console.</p>		
2c	<p>TRAFFIC WARNING SYSTEMS The following traffic warning systems shall be provided and installed on the completed apparatus by the apparatus builder:</p>		
2d	<p>SIREN AMPLIFIER One (1) Whelen brand, CANCTL6 control head shall be mounted in the center console.</p>		
2e	<p>SIREN SPEAKER One (1) Whelen brand, Model SA315P, 100 watt siren speaker shall be provided and installed inside the full replacement bumper.</p>		
2f	<p>FORWARD UPPER ZONE A/B/D LIGHT BAR One (1) Whelen low profile Super-LED NFPA light bar, shall be provided and installed on the forward leading edge of the rear cab protection rack, facing forward. The light bar shall be 54" wide, and shall contain the following modules:</p> <ul style="list-style-type: none"> • Three (3) outboard position, forward facing, red flashing modules with clear lens • Two (2) center position, forward facing, white "takedown" flashing LED modules with clear lens • Two (2) corner position, rear facing, red flashing modules with clear lens • Two (2) end position, sideways facing, white "alley" flashing LED modules with clear lens • Two (2) corner position, forward facing, red flashing modules with clear lens • Eight (8) outboard position, rear facing, red flashing modules with clear lens <p>The light bar shall be wired to a controller/switch located on the cab center console.</p>		
2g	<p>FORWARD LOWER ZONE A WARNING LIGHTS Four (4) Whelen brand, ION T series, or equivalent, red LED flashers, with mounting flanges, shall be provided on the front of the apparatus, forward facing, two (2) per side, in the brush guard. The lights shall be wired to a switch located on the cab center console.</p>		
2h	<p>FORWARD LOWER ZONE B/D WARNING LIGHTS Two (2) Whelen brand, ION T Series, or equivalent, red LED flashers, with mounting flanges, shall be provided over the front wheel well of the apparatus chassis, side facing, one (1) per side, for use as</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	"forward intersection" lights. The lights shall be wired to a switch located on the cab center console.		
2i	<p>AFT LOWER ZONE B/D WARNING LIGHTS</p> <p>Two (2) Whelen brand, ION T Series, or equivalent, red LED flashers, with mounting flanges, shall be provided on the rear sides of the apparatus chassis, over the rear wheel, side facing, one (1) per side, for use as "rear intersection" lights. The lights shall be wired to a switch located on the cab center console.</p>		
2j	<p>AFT LOWER ZONE C WARNING LIGHTS</p> <p>Two (2) Whelen brand, ION T Series, or equivalent, red LED flashers, with mounting flanges, shall be provided on the lower rear of the apparatus, rear facing, one (1) each side. The lights shall be wired to a switch located on the cab center console.</p>		
3	LABELS:		
	Blank		
3b	<p>SEATING CAPACITY</p> <p>The completed apparatus shall be designed to have a fully enclosed seat with an approved seat belt for each occupant. The term "fully enclosed" shall mean four sides, a top and a bottom, with an appropriate door for easy entrance to and exit from the seating position. . This apparatus shall have a seating capacity of two (2) personnel in front, three(3) in the rear for a total seating capacity of five (5). A warning label, listing the seating capacity of the completed apparatus, shall be provided in the apparatus cab interior. This label shall be located so that it is visible from all seating positions</p>		
3c	<p>SEAT BELT WARNING</p> <p>A warning label, stating: "DANGER- Personnel Must Be Seated And Seat Belts Must Be Fastened While Vehicle Is In Motion Or DEATH OR SERIOUS INJURY MAY RESULT," shall be provided in the apparatus cab interior. This label shall be located so that it is visible from all seating positions.</p>		
3d	<p>VEHICLE HEIGHT WARNING</p> <p>A warning label, listing the overall height, length and GVWR of the completed apparatus, shall be provided in the apparatus cab interior. This label shall be located so that it is visible from the driver's seating position.</p>		
	Blank		
3f	<p>NOISE HAZARD WARNING</p> <p>A warning label, stating: "WARNING: Noise Hazards Occur During Siren Operation," shall be provided and installed in the apparatus cab interior. This label shall be located so that it is visible from all seating positions.</p>		
3g	AIR FILTER EMBER PROTECTION SCREEN WARNING		

Item No.	MINIMUM REQUIREMENT	YES	NO
	A warning label, stating: "This apparatus is equipped with an air filter ember protection screen; routine inspection is required," shall be provided and installed in the apparatus cab interior. This label shall be located so that it is visible from the driver's seating position.		
4	CONSOLE SECTION:		
4a	SEATING The center portion of the 40/20/40 split bench seat shall be removed to accommodate the installation of the console.		
4b	CAB CONSOLE The cab shall be equipped with an angled, form-fitted control console located between the front driver's and officer's seats. This console shall be sized to accommodate the installation of a switch panel for the control of the emergency and general illumination lighting, siren controller, and customer-mounted radios. The console shall contain the following controls and switches: <ul style="list-style-type: none"> • One (1) 12V indicator and 2 position 12v power points • One (1) Whelen brand, 100 Watt electronic siren controller and switch box • One (1) bracket and pre-wiring for customer-mounted radio • One (1) flexible map light • One (1) 4 position 12V power outlet • One (1) 2 position cup holder • Two (2) mic clip brackets • One (1) pocket storage compartment 		
5	BUMPER:		
5a	FRONT BUMPER AND BRUSH GUARD A heavy duty black powder coated full replacement bumper with monitor mount and integral winch mount shall be provided and installed on the front of the apparatus. The complete assembly shall follow the chassis body lines and encompass the perimeter of the chassis front. The complete assembly shall be of such design that the guard will not vibrate, and shall provide solid mounting area for warning lights, speakers, or other specified equipment.		
	Blank		
5h	TOW HOOKS – Bumper will have OEM "J" type tow hooks or re-located factory tow hooks. These hooks will be easy to work with having plenty of clearance for attaching on a chain or tow strap and 180 degrees of pulling angle.		
5i	TRAILER RECEIVER - Standard to use on carrier style winches, backing trailers into tight spots, negotiating that small boat down the ramp with your huge camper or van, attaching a flatbed trailer and using your winch to pull up the load, steps, push bars, tire carriers, etc.		
	Blank		

Item No.	MINIMUM REQUIREMENT	YES	NO
6	MISCELLANEOUS:		
6a	HOSE AND HARNESS PROTECTION If applicable, any fuel lines or electrical harnesses below the chassis frame rails shall be protected with a fire proof sleeve designed specifically for such purpose.		
6b	UNDER CHASSIS SHIELDING The chassis shall be equipped with expanded aluminum lower radiator shielding (if applicable) and a solid plate guard mounted on the aft of the front bumper. This shield and guard shall be designed to prevent entry of sticks and other small debris which may pose a hazard to the cooling system.		
6c	CHASSIS AIR INTAKE EMBER GUARD The chassis air intake shall be protected by an ember guard of 18 Mesh, 0.017 inch wire diameter, and a maximum mesh opening of 0.039 inches. The ember guard shall be sized to fit and located at the intake opening. The screen shall be readily accessible for inspection and maintenance.		
6d	CABIN AIR EMBER GUARD The cabin air filter shall be protected by an ember guard with a maximum mesh opening of 0.039 inches. The screen shall be located at the point of intake and easily accessible for inspection and maintenance.		
7	APPARATUS PLATFORM BODY:		
7a	PLATFORM BODY All materials, parts and assemblies shall be new and of current manufacture. Workmanship, fabrication, assembly, and finished appearance shall be of the highest quality and in conformance with standard manufacturing practices. Examples of poor workmanship that will, not be accepted are grinding marks or gouges on the outer rail, floors that are not flush with the outer rail, joints that are not flush or square, unfilled joints, and warped or uneven floors. Platform shall be of marine grade T6 aluminum alloy construction and totally welded construction. Structural connections to the frame shall be made by welding or minimum Grade 8 bolts and self-locking nuts. There shall be no drilling, grinding, or welding on chassis frame flanges ahead of the rear most spring hanger. The understructure shall have no lips or pockets that will trap water and mud.		
7b	WELDING Welds shall meet American Welding Society Standards (AWS). Welds on the top and outer sides of the body and miscellaneous equipment shall be ground flush.		
7c	INSTALLATION		

Item No.	MINIMUM REQUIREMENT	YES	NO
	The body(s) shall be mounted in compliance with FMVSS 301-75 standards. Body(s) shall be mounted as low as possible without limiting tire clearance or restricting the ability to fuel the truck. The minimum distance from the top of the tire to the bottom of the floor shall be equal to the maximum suspension travel plus 2 inches. Maximum suspension travel is the distance between the axle and the rubber bumper that limits suspension travel plus 1 inch.		
8	PLATFORM MOUNTING:		
	Blank		
9	PLATFORM:		
9a	DIMENSIONS <ul style="list-style-type: none"> • Length for platform shall be 111 inches. • Width for platform shall be 96. • Bodies shall be flat plus or minus 1/8 inch over their entire length or width. • Bodies shall be square with 1/8 inch or less offset from the opposite parallel side. 		
9b	LONG SILLS Two Long Sills (LS) shall run full length in alignment with and perpendicular to the chassis frame rails. Long Sills on bodies shall be rectangular c-channel aluminum alloy 6 inches tall X 2 inches wide minimum .250 inch wall thickness material.		
9c	CROSS SILL MEMBERS Cross Sill Members (CSM) on bodies shall be rectangular C-channel aluminum alloy 3 inches tall X 1.5 inches wide minimum .180 inch wall thickness material. Cross Sill Members shall be located on maximum 12-inch centers. CSM to LS welds shall be at least 100% of the length of the contact edges on two opposing sides of the LS. CSM to outer rail welds shall be 100% of the length of both vertical sides of the CSM.		
9d	OUTER RAIL The outer rail shall be a custom aluminum extrusion 5 inches tall X 3 inches wide minimum .1875 inch wall thickness material. The outer rail shall consist of square rear corners.		
9e	PLATFORM DECK Decking on the platform shall be .125 inch marine grade aluminum diamond plate. Decking shall be interior perimeter welded to the outer rail, and 6-12" intermittently along the cross sills.		
9f	TAILBOARD The tailboard shall consist of .190 smooth aluminum with a broke bottom edge. The tailboard shall house all referenced lighting and draft tube storage. The apron shall be sufficient in design to grant a departure angle of 24		

Item No.	MINIMUM REQUIREMENT	YES	NO
	degrees. The completed tailboard assembly shall meet all other requirements of NFPA 1906 for angle of departure.		
9g	<p>FUEL TANK FILLER</p> <p>The fuel filler-neck shall be incorporated into the bed channel outer rail unless using an OEM standalone system. Fuel cap shall not protrude past outer rail. The fuel tank filler shall be mounted in accordance with FMVSS 301. The fuel filler hose shall not touch any rough or sharp surfaces, and have no kinks or restrictions. Hose shall be supported on no more than 16-inch centers, have at least 6 inches clearance from the rear tire with any amount of suspension travel, and if closer than 12 inches to the tires, have a shield to protect it from objects that may be thrown from the tires.</p>		
9h	<p>DRAFT LINE STORAGE</p> <p>Draft hose storage shall be mounted under the platform, between the frame rails of the truck. The draft hose box shall be a minimum of 4 inches tall, 30 inches wide and 100 inches deep. The opening is covered with a drop down, aluminum diamond plate door. The door shall utilize a full length stainless steel piano hinge and a stainless steel twist latch.</p>		
10	<p>COMPARTMENTATION:</p> <p>All upper storage compartment walls shall be constructed from .125 inch aluminum diamond plate. All upper compartment doors shall be .125 smooth aluminum and painted chassis color. All compartment doors shall have a horizontal, full length stainless steel piano hinge and gas struts to hold the doors open. All compartment interiors shall be free of exposed electrical harnesses or plumbing components. All compartments shall be as large as possible, as determined by the design of the apparatus. Compartment configuration and approximate sizes required are listed below:</p>		
10a	<p>DRIVER'S SIDE COMPARTMENTS</p> <p>The driver's side top compartment shall have approximate dimensions of 108" L X 24" H x 18"D. The front 36" shall be separated from the rear by a divider wall and shall have one lift up door. The driver's side top rear box on the apparatus body shall have approximate dimensions of 72" L X 24" H x 18" D and contain one (1) compartment with two lift up doors. This compartment shall be designed for the storage of long handled tools.</p> <p>The driver's side lower, front on the apparatus body shall be attached to the underside of the body from its top, forward of the rear wheels. This box has dimensions of 30" W X 16" H X 20" D and contain one (1) compartment with one drop down door.</p>		
10b	PASSENGER'S SIDE COMPARTMENTS		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>The passenger's side top front box on the apparatus body shall have approximate dimensions of 72" L X 24" H x 18" D and contain one (1) compartment with two lift up doors. The front compartment shall be 40"L and the Rear compartment shall be 32"L.</p> <p>The passenger side lower, front on the apparatus body shall be attached to the underside of the body from its top, forward of the rear wheels. The dimensions of 30" W X 16" H X 20" D and contain one (1) drop down door.</p>		
10c	<p>COMPARTMENT DOORS</p> <p>All compartment doors shall be integral in design and recessed into the box (compartment body) sides, sized to provide easy access to all interior areas of the compartment. All doors shall be consistent in fit and finish with the compartment unit. All doors shall be weatherproof and maintain contact with all points of the weather stripping. Weather stripping shall be bulb type, attached to the opening flange of the compartment opening. The doors will have a pan stiffener in each door for strength. Doors painted either Ford Race Red or other customer approved finish.</p>		
10d	<p>DOOR LATCHES AND HARDWARE</p> <p>Unless where noted, all compartment door latch assemblies shall be installed with threaded fasteners, shall not be welded, and shall be easily removable for servicing or replacement. All door latch assemblies shall be of a flush-mount, "D-Handle" design, with all external components fabricated from polished stainless steel. All latches shall be of a two position twist latch type design latching operation.</p> <p>All hardware shall be corrosion resistant and suitable for its intended use. All nuts and bolts shall be stainless steel. Stainless steel nuts shall be the self-locking type. No key locks on doors.</p>		
10e	<p>COMPARTMENT MATTING</p> <p>Dri-Dek tiles shall be installed in all compartments, hose trays, and dunnage boxes.</p>		
10f	<p>ADJUSTABLE SHELF CHANNELS</p> <p>Vertically-mounted aluminum shelf system shall be provided and welded to the side wall of all enclosed top compartments. This is for the current or future installation of adjustable shelving, slide out trays or equipment brackets.</p>		
10g	<p>COMPARTMENT SHELVES</p> <p>Four (4) adjustable shelves shall be provided and installed in the completed top body compartments. The shelving system shall be mounted on a punched finger style) slim-line track to allow the change of elevation. The shelves shall be 17.5" in depth, width of the box with</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>2" peripheral lip constructed of aluminum and be capable of supporting 250 lbs. of live load without being damaged or permanently distorted. The shelf locations shall be as follows:</p> <ul style="list-style-type: none"> • One (1) in the driver's side top front compartment box. • One (1) in the driver's side top rear compartment. • One (1) in the passenger's side top front compartment • One (1) in the passenger's side top rear compartment. 		
10h	<p>TOP OF BOX BASKETS Two (2) dunnage boxes shall be provided and installed above the top storage compartments and aft of Crosslay, with approximate dimensions of 66" L X 8" H X 18"D. The dunnage boxes shall be constructed of 1/8 inch aluminum diamond plate. It shall be open at the top and have a black vinyl tarp to comply with NFPA 1906.</p>		
10i	<p>CROSSLAY The crosslay is three sided formed aluminum 6"Wx8"Hx96"L. It will have a red tarped cover with Turnbuckle Curtain Fasteners and Velcro on both long sides for tarp cover removal in order to reinstall hose used on scene. The tarp end will cover the ends and have quick release straps. It will bolt to the rear cab protection and the baskets to hold into place.</p>		
11	<p>REAR CAB PROTECTION (RCP) There shall be a headache rack located at the front of the fire body. The headache rack shall be constructed of heavy duty 3.0" x 2.0" x .25 6061-T6 extruded aluminum tube. The headache rack shall have .125" aluminum diamond plate covering the bottom half on the front side and aluminum louvers on the top half. There shall be an approximate 60"W x 10"D aluminum plate light bar mounting platform located on top of the fire body headache rack.</p>		
12	<p>BODY ELECTRICAL REQUIREMENTS:</p>		
12a	<p>WIRING SPECIFICATIONS All apparatus body electrical components shall be served by independent circuits which shall be separate and distinct from the apparatus cab and chassis electrical circuits. All wiring supplied and installed by the apparatus manufacturer shall be installed in flexible split convoluted loom and shall be color coded and function labeled at 6" intervals per NFPA standards. All wiring supplied and installed from the apparatus manufacturer by an EVT certified technician shall be grease, oil and moisture resistant; and shall be securely fastened with insulated metal clamps and nylon wire ties. Solderless insulated connectors shall be utilized at all splice joints and shall be enclosed</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	with heat shrink tubing for extra corrosion protection. Automatic reset type circuit breakers shall be provided wherever possible. The following electrical components shall be provided and installed on the completed apparatus by the apparatus builder:		
12b	LIGHTING SPECIFICATIONS All Lighting shall meet Federal Motor Vehicle Safety Standards. It is acceptable to utilize the existing light fixtures furnished with the cab and chassis. Clearance and identification lights shall be easily changed rubber-mounted, shock proof LED and meet FMVSS 108 requirements.		
12c	BACK UP LIGHTS A pair of Peterson LED Oval Sealed 10 Diode Pattern, or equivalent, clear LED back up lights shall be provided at the rear of the body, one (1) each side, above the rear step. The backup lights shall be wired so that they illuminate when the chassis is placed in reverse gear.		
12d	TAIL LIGHTS, BRAKE LIGHTS A pair of Peterson LED Oval Sealed 10 Diode Pattern, or equivalent, red LED combination tail/brake lights shall be provided at the rear of the body, one (1) each side, above the rear step.		
12e	TURN SIGNAL LIGHTS A pair of Peterson LED Oval Sealed 10 Diode Pattern, or equivalent, amber LED arrow style turn signal lights shall be provided at the rear of the body, one (1) each side, above the rear step.		
12f	LICENSE PLATE BRACKET AND LIGHT Two (2) Peterson brand, 26 Series LED clear light fixture, or equivalent, with license plate mounting bracket, shall be provided at the rear of the body.		
12g	CLUSTER/CLEARANCE LIGHTS AND REFLECTORS Three (3) round ICC LED clearance lights shall be located at the rear of the apparatus above the bumper. Additional lighting clearance lights shall be provided to conform to DOT, Federal and NHTSA specifications for vehicles of 80" wide. All lighting shall be compatible with the 12V chassis electrical system. Lighting shall be located according to ICC regulations.		
	Blank		
	Blank		
12j	FLOOD LIGHTS Two (2) Peterson, 900 lumen LED White Light Work Lamp, shall be provided and installed, one each side of the apparatus on the rear cab protection rack. The mounting bracket shall enable full 360° rotation both in the horizontal and vertical axis. The light shall be wired to an individual switch on the cab center console.		
12k	COMPARTMENT LIGHTS		

Item No.	MINIMUM REQUIREMENT	YES	NO
	Two (2) 12" LED lights, one each side of the door openings, shall be provided to illuminate the compartment. Lighting shall be plastic encapsulated, shock resistant, continuous LED light segments. The LED strip lights shall be attached securely at the sides and top of each compartment opening depending on placement. Each compartment shall have a door switch installed to activate compartment lighting when the individual door is opened.		
13	OTHER APPARATUS BODY ITEMS:		
13a	EXHAUST SYSTEM The exhaust system shall remain unmodified and as received from the chassis manufacturer. If the exhaust system proves to be in conflict with mounting items or departure angle, a conference between the chassis manufacturer, the apparatus builder and the department shall ensue about proper placement. Upon agreement, the apparatus builder shall move the exhaust system properly to its new placement at no extra charge.		
13b	MUD FLAPS One (1) pair of flexible rubber mud flaps shall be provided on both sides of the apparatus body behind the rear wheels. The mud flaps shall extend down far enough to be effective but shall not allow the flaps to become entangled with the rear tires when the apparatus is backing up.		
13c	BUMPER – RECIVER HITCH A full length rear bumper with integral receiver tube shall be installed on the apparatus. The bumper shall be made of 3" x 6" x .1875 steel tube and provide a step to help access the fill tower. A warning plate shall be affixed to the rear of the apparatus in a conspicuous place. The warning plate shall read: "WARNING: DO NOT RIDE ON REAR STEP WHILE VEHICLE IS IN MOTION. DEATH OR SERIOUS INJURY MAY RESULT".		
	Blank		
13e	GRAB HANDLES Two (2) NFPA-compliant chrome-plated grab handles shall be provided and mounted at the rear, location determined by customer.		
13f	WHEEL CHOCKS Two (2) Zico brand AC-32 or equal NFPA 1901-09 compliant wheel chocks shall be provided with the completed apparatus, one (1) each side. They will be mounted to the location chosen by the SLC fire department at the mid-build factory inspection. The holders shall be Zico brand QCH-32-H or equal holders for convenient storage.		
14	PUMP PACKAGE: The following specifications are for a complete apparatus pump firefighting unit, consisting of tank, control panel, engine, pump and		

Item No.	MINIMUM REQUIREMENT	YES	NO
	plumbing that shall be permanently mounted on the platform style body. The system shall cover the rest of the platform deck space.		
	Blank		
14b	<p>PUMP, PLUMBING & VALVES</p> <p>The following pump, plumbing, controls, gauges, and accessories shall be provided as indicated below. The plumbing requirements outlined below shall be considered a minimum standard, and are preferred to be followed by the apparatus manufacturer without exception:</p> <p>All plumbing components shall be fabricated from welded stainless steel with the exception of the valves, which will be brass and hose flex connections.</p> <p>The auxiliary fire pump plumbing system shall be built mostly of stainless steel piping, fittings, and connections. Victaulic couplings shall be installed to permit flexing of the plumbing system and allow for quick removal of piping or valves for service. Tank connections and remote plumbing shall use high-pressure flexible piping. Flexible hose couplings shall be threaded stainless steel or Victaulic connections.</p> <p>All pump compartment components, including wiring, gauges, pump panel rear surfaces, high pressure hoses, and small diameter tubing, shall be left unpainted for rapid identification and ease of repair.</p> <p>All valves used in the plumbing installation shall be stainless steel quarter turn full flow type.</p> <p>The plumbing installation shall include quarter turn ball valves with local "on-valve" handle control, with custom embossed labeling for each valve.</p> <p>The hose threads shall be National Hose Standard (NH) on all base threads on the apparatus intakes and discharges, unless otherwise specified.</p>		
15	PUMP UNIT:		
15a	<p>PUMP ENGINE:</p> <p>The engine shall be a 4-cycle gasoline Briggs and Stratton Vanguard 386447 Series V Twin, with overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16 amp alternator. Recoil backup engine starting shall be provided. Engine shall be equipped with a residential muffler with USDA approved spark arrestor. The auxiliary fire pump and engine assembly shall have a muffler and vertical exhaust pipe. The exhaust pipe shall be directed upward and away from the pump operator. A rain cap will be installed on the vertical exhaust outlet. The pump/engine shall be isolation mounted onto a steel base.</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
15b	<p>PUMP</p> <p>The pump body shall be made of aluminum alloy castings coupled together with a stainless steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 300 PSI for 10 minutes. The impeller shall be bronze. The renewable clearance rings shall be made of anodic plated bronze to inhibit galvanic corrosion. The impeller shall be 8.75 inches in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.</p>		
15c	<p>PUMP PRIMING</p> <p>The pump shall be equipped with electric, oil-less primer.</p>		
15d	<p>PUMP SUCTION/DISCHARGE</p> <p>The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters. Standard unit supplied with 2" Female National Hose thread pump intake and 1-1/2" Male National Hose Thread discharge.</p>		
15e	<p>PUMP MAKE, MODEL & PERFORMANCE</p> <p>A Hale HPX200-B23 fire pump shall be installed on the apparatus. The pump/engine shall perform to the standards of ISO 9 and NFPA 1906 low-pressure pump rating. Typical pump performance from 4 foot draft at sea level using a 2.5" suction line and a 2.5" discharge shall be.</p> <p>The Pump/Engine shall be capable of meeting NFPA 1906 performance rating of:</p> <p>50 GPM @ 150 PSI 150 GPM @ 100 PSI.</p> <p>Typical pump performance from 5 foot draft at sea level shall be:</p> <p>90 GPM @ 150 PSI 170 GPM @ 100 PSI 250 GPM @ 30 PSI</p>		
15f	<p>REAR MOUNTED PUMP OPERATOR'S PANEL</p> <p>A pump operator's control panel shall be located at the rear of the apparatus body. It shall contain all controls necessary to operate the pump systems. The panel shall be appropriately sized with the controls positioned in a methodical, user-friendly format. The edges of the panel shall be smooth radius to prevent the snagging of clothing or injury. The panel shall have an extended top to assist in weather protection and to house the panel lights. Controls shall be provided on the operator's panel as follows:</p> <ul style="list-style-type: none"> • Pump engine ignition/start/stop controls 		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<ul style="list-style-type: none"> • Starter push button • Oil pressure warning light • Engine choke control • Throttle control • Primer control • 2.5" liquid filled discharge gauge • Low water pressure override switch (protected toggle type) • Low oil pressure override switch (momentary push button type) • Operator's panel light and switch 		
15g	<p>IN CAB PUMP CONTROLS</p> <p>All electric, in cab pump controls shall be installed on the center console. The in-cab controls shall offer start, stop, choke, throttle up, and throttle down functions. There shall also be a 200psi gauge installed to monitor pump pressure and a FRC mini water level display as well.</p>		
	Blank		
	Blank		
15i	<p>PUMP PANEL LIGHT</p> <p>One (1) 12"LED cargo light, or equivalent, facing downward, shall be provided to illuminate the rear pump operator's panel. This light shall be controlled by a manual switch on the pump operator's panel.</p>		
15j	<p>FUEL TANK SYSTEM</p> <p>The pump motor will use a custom gas tank. A small engine electric fuel pump shall be installed to pump fuel to the level of the pump motor requirements.</p>		
16	MAIN DISCHARGE AND INTAKE PLUMBING:		
16a	<p>MAIN SPECIFICATIONS</p> <p>The discharge and intake valves specified shall be either of a direct-actuated quarter turn design or shall be provided with control rods that are directly connected from the valve handle to the rear mounted pump panel area. All discharges and intakes shall have NST thread brass chrome rocker lug style caps with chains, unless designed to be pre-connected, or otherwise specified. Where vibration or chassis flexing may damage or loosen piping, the piping shall be equipped with Victaulic couplings, rubber pressure rated hose or pump hose connections. The main pressure manifold is to be behind the pump in front of the tank for a less cluttered area on the rear of the platform. The main suction and discharge plumbing shall be welded stainless steel pipe or high pressure flexible hose with appropriate fittings designed to withstand the normal operating pressures of the pump. All high pressure hose shall be installed with a swivel or Victaulic coupling</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>on at least one end of the hose. The nominal sizes of all of the plumbing supplying the pump and discharges shall be as follows:</p> <ul style="list-style-type: none"> • Main suction – 2.5” inch • Discharges –1-1/2 inch • Hose reel – 1 inch 		
16b	<p>MAIN VALVES All valves shall be Akron 8800 series swing-out style. All valves shall be designed to operate under normal conditions up to 500 PSI and shall have dual seats to work in both pressure and vacuum environments. All valves and controls shall be easily accessible for service, repair or replacement.</p>		
16c	<p>MASTER DRAIN A master drain valve shall be plumbed to the pump, suction plumbing and discharge plumbing as required to fully drain the piping and pump to prevent damage from freezing. The drain valve and associated plumbing will be designed to withstand pressures of 400 psi.</p>		
	Blank		
16e	<p>DISCHARGE LOCATIONS The discharge plumbing from the fire pump to the water distribution manifold shall be plumbed with 2.5” welded stainless steel pipe. The discharge plumbing shall integrate into the fire pump discharge with a stainless steel 4-bolt flange and shall integrate into the water distribution manifold with a 2.5” Victaulic fitting. The water distribution manifold shall be a 4.0” square stainless steel tube. The water distribution manifold shall have the following inlets / outlets:</p> <ul style="list-style-type: none"> ➤ One (1) 2.5” Victaulic fitting for the 2.5” plumbing from the fire pump. ➤ One (1) 2.0” 4-bolt flange for the front monitor. ➤ One (1) 1.5” 4-bolt flange for the 1.5” pre-connect. ➤ One (1) 1.5” 4-bolt flange for the rear 1.5” discharge ➤ One (1) 1.5” 4-bolt flange for the 1.5” “Engine Protection” discharge ➤ One (1) 1.0” 4-bolt flange for the booster reel. ➤ One (1) ¼” MNPT fitting for the manifold drain. <p>There shall be one (1) 1.0” water tank refill / recirculation line provided. The refill / recirculation line shall be controlled by a 1.0” stainless steel full port, full flow gate valve. The refill / recirculation line plumbing shall be high pressure hose with welded stainless steel fittings. There shall be one (1) 1.5” discharge plumbed from the water distribution manifold to the pre-connect hose tray. The discharge shall</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>be plumbed with 1.5" high pressure flexible hose with welded stainless steel fittings.</p> <p>This discharge shall terminate inside the pre-connect hose tray with a brass 1.5" MNST 90-degree swivel.</p> <p>There shall be one (1) 1.5" MNST discharge provided at the rear of the apparatus.</p> <p>The entire 1.5" discharge assembly (manifold to valve – valve to discharge) shall be composed entirely of welded stainless steel and shall contain no threaded connections.</p> <p>The 1.5" discharge shall terminate with MNST threads and shall be provided with a chrome 1.5" rocker lug cap and chain.</p> <p>There shall be one (1) 1.5" discharge plumbed from the water distribution manifold to the "Engine Protection" hose box, located on the exterior rear wall of the driver side upper body compartment.</p> <p>The "Engine Protection" hose box shall be appropriately labeled.</p> <p>The discharge shall be plumbed with 1.5" high pressure flexible hose with welded stainless steel fittings.</p> <p>The discharge shall terminate inside the "Engine Protection" hose box with stainless steel 1.5" MNST threads. The "Engine Protection" hose box shall be provided with 25' of 1.5" forestry hose and 1.5" ATI Viper series 25 GPM / 100 GPM @ 100 PSI automatic nozzle with pistol grip nozzle.</p> <p>There shall be one (1) 1.0" discharge plumbed from the water distribution manifold to the booster reel.</p> <p>The discharge shall be plumbed with 1.0" high pressure flexible hose with welded stainless steel fittings.</p> <p>The complete discharge plumbing system shall be hydrostatically tested at 300 psi for two (2) minutes.</p> <p>This shall be completed to test the integrity of the plumbing system and to verify the plumbing system is leak free</p>		
16f	<p>INTAKE LOCATION</p> <p>The tank to pump plumbing shall be 2.5" welded stainless steel.</p> <p>A wire reinforced flexible connection shall be located between the water tank and tank to pump valve, providing for reduced fire pump vibration and ease of service.</p> <p>The tank to pump plumbing shall connect to the fire pump intake by a Victaulic coupler.</p> <p>There shall be a 2.5" gated suction intake provided at the rear of the apparatus.</p> <p>The suction intake shall be controlled by a 2.5" gate valve with hand wheel valve control.</p> <p>The suction intake shall terminate with a chrome 2.5" FNST swivel connection with integrated suction screen.</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	The suction intake shall be provided with a chrome 2.5" rocker lug plug and chain.		
16g	<p>MONITOR FRONT BUMPER</p> <p>There shall be an Akron Forestry monitor provided and installed on the chassis modified front bumper. The joystick shall be mounted on the center console. The monitor shall be plumbed with 1.5" plumbing. The monitor shall be capable of flowing 30-125gpm</p>		
	Blank		
17	<p>WATER TANK AND CONSTRUCTION:</p> <p>One (1) polypropylene water tank shall be provided with the apparatus.</p> <p>The color of the tank shall be black.</p> <p>The water tank shall have a capacity of 400 gallons.</p> <p>The water tank shall be baffled to help prevent sudden movement of the water while driving.</p> <p>The water tank baffling shall meet or exceed published NFPA standards.</p> <p>The water tank shall have one (1) 8.0" square fill tower with incorporated 4.0" vent / overflow pipe and removable polypropylene screen.</p> <p>The fill tower shall be located at the passenger side rear of the water tank.</p> <p>The water tank shall have one (1) liquid level sight gauge located on the rear wall of the tank.</p> <p>The water tank shall have a 3.0" FNPT tank suction located on the left lower rear wall of the tank.</p> <p>The tank suction shall be provided with a recessed sump with anti-swirl plate.</p> <p>The water tank shall have a 1.5" FNPT recirculation fitting.</p> <p>The water tank shall have a 1.0" FNPT drain fitting located at the passenger rear of the water tank.</p> <p>The tank drain shall be plumbed to the underside of the fire body with 1.0" stainless plumbing.</p> <p>A 1.0" stainless steel full port quarter-turn industrial valve shall be provided for the tank drain.</p> <p>The water tank shall have two (2) heavy duty mounting tabs molded into the floor of the tank.</p> <p>The mounting tabs shall be utilized to securely mount the water tank onto the heavy duty aluminum skid frame.</p> <p>There shall be two (2) auxiliary mounting blocks located on top of the water tank.</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>These mounting blocks can be utilized for mounting equipment to the top of the water tank.</p> <p>The water tank shall have a life time warranty.</p>		
18	<p>BOOSTER HOSE REEL:</p> <p>One (1) Hannay brand, Model # F28-25-26, or equivalent, booster hose reel, with a 70 amp breaker, and a capacity of 200 ft. of 1" booster hose, shall be provided and installed at the rear passenger's side of the platform deck. The hose shall dismount to the rear of the apparatus.</p> <p>The hose reel frame and drum shall be fabricated of polished aluminum, with the sprocket being chrome plated to minimize maintenance. The hose reel inlet connection shall be a 1" inline quarter turn valve and 1" flexible wire-reinforced hose. The hose reel outlet connection shall be 1" NPSH thread. The control shall be located on the rear-mounted pump operator's panel area.</p> <p>The reel shall be provided with a 2/3 HP, 12 Volt electric motor for rewinding the hose on to the reel. This motor shall be controlled with one (1) Cole Hersee M-612, or equivalent, push button switch located on the pump control panel. The booster reel shall have provisions for manual rewind. The pinion shaft for the manual rewind gear shall have an adjustable tension brake, controlled at the reel. One (1) FH3 captive roller assembly, or equivalent, shall be provided.</p> <p>One ATI BD1560 nozzle shall be provided.</p>		
19	Blank		
20	LABELING:		
20a	<p>TRUCK IDENTIFICATION PLATE</p> <p>A truck identification plate shall be provided and installed on the pump operator's panel. The plate shall state the name and address of the apparatus manufacturer, the serial number of the unit and the pump performance test results.</p>		
20b	<p>PUMP PANEL LABELING</p> <p>All controls, discharges, intakes, ports, drains, and other pump panel components that are not provided with a pre-printed legend or trim plate shall be labeled as required for ease of operation.</p>		
20c	<p>VALVE LABELING</p> <p>Valves and /or Valve control handles shall be labeled as to duty. The tags shall be placed adjacent to the components in such a way as to clearly distinguish the item that they are identifying.</p>		
21	PUMP PERFORMANCE TEST AND CERTIFICATION:		
21a	NOZZLE CLIP AND HOLDER		

Item No.	MINIMUM REQUIREMENT	YES	NO
	One (1) PAK brand, Model 1004, or equivalent, tool holder shall be provided and shall be permanently affixed per department recommendation at mid-build meeting.		
22	COMPLETED APPARATUS TESTING:		
22a	<p>PUMP PERFORMANCE TEST AND CERTIFICATION</p> <p>Upon completion, the apparatus shall undergo a complete pumping test that conforms to the requirements of NFPA Standard 1906 (latest edition) for the size and type of pump provided in Ogden City, Utah. The test shall consist of a continuous one-half hour test pumping at rated capacity and rated net pump pressure, a vacuum test of the primer system and plumbing, a tank discharge flow test and a pressure test of the apparatus piping. The chassis engine and transmission, the pump and other components of the apparatus shall show no undue heating, leaks, or other defect. The results of the test shall be documented to establish the performance of the apparatus and to further insure that the unit shall perform satisfactorily when placed into service. The test results shall be certified in writing, with the certification provided to the purchaser for their records at the time of delivery of the completed apparatus.</p>		
22b	<p>ELECTRICAL, LOW-VOLTAGE TEST</p> <p>The fire apparatus low voltage electrical system shall be tested as required by this section and the test results shall be certified by the apparatus manufacturer. The certification shall be delivered to the purchaser with the documentation for the completed apparatus. The tests shall be performed when the air temperature is between 0°F and 110°F (18°C and 43°C).</p>		
22c	<p>TEST SEQUENCE</p> <p>The three (3) tests defined below shall be performed in the order in which they appear. Before each test, the chassis batteries shall be fully charged until the voltage stabilizes at the voltage regulator set point and the lowest charge current is maintained for 10 minutes. The failure of any of these tests shall require a repeat of the test sequence.</p>		
22d	<p>RESERVE CAPACITY TEST</p> <p>The chassis engine shall be started and kept running until the chassis engine and engine compartment temperatures are stabilized at normal operating temperatures and the chassis battery system is fully charged. The chassis engine shall be shut off and the minimum continuous electrical load shall be applied for 10 minutes. All electrical loads shall be turned off prior to attempting to restart the chassis engine. The chassis battery system shall then be capable of restarting the chassis engine. The failure to restart the chassis engine shall be considered a failure of this test.</p>		
22e	ALTERNATOR PERFORMANCE TEST AT IDLE		

Item No.	MINIMUM REQUIREMENT	YES	NO
	The minimum continuous electrical load shall be applied with the chassis engine running at idle speed. The chassis engine temperature shall be stabilized at normal operating temperature. The chassis battery system shall be tested to detect the presence of a chassis battery current discharge. The detection of chassis battery current discharge shall be considered a failure of this test.		
22f	<p>ALTERNATOR PERFORMANCE TEST AT FULL LOAD</p> <p>The total continuous electrical load shall be applied with the chassis engine running up to the engine manufacturer's governed speed. The test duration shall be a minimum of two (2) hours. The activation of the electrical system load management system shall be permitted during this test. The activation of an alarm due to excessive chassis battery discharge, as detected by the system required by NFPA (current edition), or an electrical system voltage of less than 11.8 VDC for a 12 VDC nominal system, for more than 120 seconds, shall be considered a failure of this test.</p>		
23	APPARATUS FINISH:		
	Compartment Doors painted Ford Race Red or other customer approved finish.		
23c	<p>CAB AND BODY LETTERING AND STRIPING</p> <ul style="list-style-type: none"> • Fire Department specific lettering and striping shall be applied to the chassis cab doors and the body compartment doors. 		
24			
25	<p>ADDITIONAL EQUIPMENT:</p> <p>The following equipment shall be provided with the completed apparatus. The equipment shall be new and unused, and shall meet all current NFPA, OSHA and other applicable safety regulations.</p>		
25a	<p>MANUALS AND DRAWINGS</p> <ul style="list-style-type: none"> • The following specified materials shall be provided with the completed apparatus: <ul style="list-style-type: none"> • One (1) complete set of standard chassis operation, parts and service manuals. • One (1) apparatus manufacturer's operation and service manual, to include: <ul style="list-style-type: none"> ✓ Warranty Registration and Information ✓ Pump Operation and Troubleshooting Instructions ✓ Maintenance and Lubrication Information & Charts ✓ Complete Electrical Diagrams ✓ Component Literature (ie: siren, hose reel, etc.) 		

Item No.	MINIMUM REQUIREMENT	YES	NO
	✓ Pump Test Certificate, Weight Certificate, Service Parts Replacement List		
25b	ROAD KIT The completed apparatus shall be equipped with a road kit containing the following items: <ul style="list-style-type: none"> • One (1) 2-1/2 lb. Class B/C fire extinguisher with vehicle mounting bracket, shipped loose • One (1) set of warning triangle reflectors, containing three (3) folding reflectors in a plastic storage case • One (1) 12 ton hydraulic jack with handle 		
25c	AUTO CHARGER There shall be a Kussmaul Auto Charge 1000 with 20A Auto Eject installed on the apparatus. The location shall be determined at pre-build. A battery saver filter shall be installed to protect low amp electronics.		
26	WARRANTIES: The award will also take into consideration warranty and warranty provisions of the proposed vehicle. The bid shall state the type of warranty that the manufacturer will provide, with copies of warranty coverage and omissions enclosed with these specifications. Warranties will at minimum provide a thirty six (36) months and 36,000 mile warrant on the entire vehicle which covers defective parts and or components of its manufacture. Warranty shall include any and all costs for labor and parts or materials that are required to correct any and all deficiencies. Under this warranty, the apparatus manufacturer shall be responsible for the costs of repairs to the apparatus that have been caused by defective workmanship or materials during this period.		
26a	THREE YEAR CHASSIS WARRANTY The manufacturer of the chassis shall warranty the chassis for a period of at least Three Years. As an apparatus may be integrally married to the chassis and this is an emergency vehicle, the City reserves the right at its discretion to call upon apparatus warranty first to determine whether the issue is a chassis or an apparatus problem at no charge.		
26b	THREE YEAR APPARATUS WARRANTY All materials and workmanship herein specified, including all equipment furnished, shall have a warranty for a period of three (3) years after the acceptance date of the apparatus, unless otherwise noted, with the exception of any normal maintenance services or adjustments which shall be required. A copy of the warranty shall be submitted with the Bidder's proposal.		
26c	WATER TANK WARRANTY		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>The polypropylene water tank that is specified to be supplied with this apparatus shall have a warranty by the water tank manufacturer for a "lifetime" period from the date that the apparatus is put into service. The manufacturer shall repair, at no cost to the purchaser, any problems caused by defective materials and/or workmanship. The warranty shall cover the reasonable costs of removing the water tank from the apparatus and reinstalling it after the completion of the covered warranty repairs, but shall not cover any liability for the loss of service or downtime costs of the apparatus. A sample of warranty shall be submitted with the Bidder's proposal.</p>		
26d	<p>ALUMINUM BODY PRODUCTS</p> <p>The aluminum body that is specified to be supplied with this apparatus shall have a warranty by the manufacturer for a "lifetime" period from the date that the apparatus is put into service. The manufacturer shall repair, at no cost to the purchaser, any problems caused by defective materials and/or workmanship. The warranty shall cover the reasonable costs of removing any body component from the apparatus and reinstalling it after the completion of the covered warranty repairs, but shall not cover any liability for the loss of service or downtime costs of the apparatus. A sample of warranty shall be submitted with the Bidder's proposal.</p>		
26e	<p>EMERGENCY LIGHTING PRODUCTS</p> <p>The emergency lighting products that is specified to be supplied with this apparatus shall have a warranty by the manufacturer for a period of at least five years from the date that the apparatus is put into service. The manufacturer shall repair, at no cost to the purchaser, any problems caused by defective materials and/or workmanship. The warranty shall cover the reasonable costs of removing any emergency lighting component from the apparatus and reinstalling it after the completion of the covered warranty repairs, but shall not cover any liability for the loss of service or downtime costs of the apparatus. A sample of warranty shall be submitted with the Bidder's proposal.</p>		
27	<p>WARRANTY SERVICE RESPONSE:</p> <p>The successful Bidder must have a factory authorized service center staffed with certified emergency vehicle technicians available twenty-four hours a day seven days a week to respond to verbal or written notification that warranty service work is required. Vendor shall be willing to provide follow-up service including replacement parts for repairs, etc. as may be needed by this service to maintain the vehicle after it is put into operation. Bidders shall provide the location and service capabilities and contact information for the apparatus manufacturer's authorized service facility and parts depot nearest to Ogden, UT. Facility must be within 50 miles for emergency response.</p>		

Item No.	MINIMUM REQUIREMENT	YES	NO
	<p>WARRANTY SERVICE CENTER</p> <p>Name _____ Phone _____</p> <p>Address _____ 24-7 Phone _____</p> <p>City _____ Fax _____</p> <p>Contact _____ Email _____</p> <p>Service Capabilities _____</p>		
28	<p>DELIVERY & TRAINING</p> <p>Person or persons delivering the unit must be a licensed representative of the firm bidding and must be a certified service technician of the represented dealership. They must be willing to give orientation and training on the vehicle to this service and be willing to spend up to 8-hours in the area and/or per vehicle if necessary.</p>		
29	Blank		
30	OTHER BID DOCUMENTATION:		
31	<p>OPTIONS</p> <p>One Warn 16.5ti fixed mount winch to be installed in the front replacement bumper. This requires a change to the bumper as does the monitor in the front bumper.</p>		
32	<p>ADDITIONAL PURCHASES</p> <p>We reserve the right to add additional vehicles to this purchase if so desired. If model year has changed additional purchases may include up charge from model year to the next.</p>		

BID NAME: _____

EXHIBIT "C"
OPTIONS PRICE SHEET
Self-Contained Bed/Pump/Tank/Hoses Skid Unit
Installed on a Supplier supplied cab & chassis
2018 Ford F-550 XL, Extended Cab, 4x4, 6.7L Diesel Engine with 60" CA

NOTICE TO BIDDERS: The City reserves the right to accept and/or reject any one or more of the options listed on this Options Price Sheet. Bidder may list other options available, and may add additional pages if necessary. Please list any options available on the unit bid. Indicate whether or not each option is available.

OPTIONS	YES	NO	NO COST	ADD \$\$

BID NAME: _____

EXHIBIT "D"
REFERENCES
Self-Contained Bed/ Pump/Tank/Hoses/ Skid Unit
Installed on a Supplier supplied cab & chassis
2018 Ford F-550 XL, Extended Cab, 4x4, 6.7L Diesel Engine with 60" CA

NOTICE TO BIDDERS: Any bidder who willfully falsifies any portion of the references listed below shall be subject to suspension and/or debarment from bidding. Bidder shall list references of companies who have purchased the equipment specified from your company within the previous four (4) years. References shall be in United States.

COMPANY NAME AND ADDRESS	PHONE NUMBER	CONTACT NAME

*Please authorize the City and its designated procurement officials to check on references submitted by your company by filling out the information requested below.

SIGNED: _____ **DATE:** _____

PRINTED NAME: _____

TITLE: _____

COMPANY NAME: _____

ADDRESS: _____ CITY: _____ STATE: _____
ZIP: _____

PHONE: _____ MOBILE: _____ FAX: _____

EMAIL: _____ WEBSITE: _____

BID NAME: _____

EXHIBIT "E"
MAINTENANCE SUMMARY FORM
Self-Contained Bed/Pump/Tank/Hoses/ Skid Unit
Installed on a Supplier supplied cab & chassis
2018 Ford F-550 XL, Extended Cab, 4x4, 6.7L Diesel Engine with 60" CA

MANUFACTURER'S LOCAL REPRESENTATIVE:

Name:

Number: _____

Telephone

Address:

Contact Person:

Local warranty service, repair and parts shall respond to the City's needs within twenty-four (24) hours of contact from City representative, either by having a service technician respond to the location of the equipment or the facility shall be able to work on the equipment at their location. Failure to comply with this requirement may result in rejection of your bid.