



Where History Meets Adventure

The Corporation of the Village
of Clinton 1423 Cariboo Hwy.
PO Box 309 Clinton, B.C. V0K
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Tuesday, April 10, 2018

Dear Sir/Madam:

The Village of Clinton is inviting proposals from qualified bidders to supply and deliver One (1) Fire Rescue Vehicle as detailed on the attached RFP Specification Sheet(s)

The bidder shall submit two (2) completed RFP Specification sheets for the Fire Rescue Vehicle, one marked original and one marked copy, delivered to: Village of Clinton PO Box 309 1423 Cariboo Highway 97, Clinton BC V0K 1K0 by 3:00 pm local time April 30, 2018

NOTE: Fax submissions are not acceptable in this RFP process. E-mail and Hard copies must be hand delivered or couriered to the Village of Clinton before the RFP closing date. It is the responsibility of the bidder to confirm that their submissions arrive by the closing date to be eligible for consideration in this RFP.

In order to achieve our objectives in a sustainable and ethical manner, submissions will be evaluated on the vehicle's ability to meet the requested specifications, price, manufacturer drive train warranty, and dealer offered replacement parts purchasing discount.

Bidders are encouraged to provide equipment information for: special features, standard equipment government offered discounts, and available options.

Contracts will be awarded, at the sole discretion of the Village of Clinton to the bidder that meets the criteria of our posted specifications while offering the Village of Clinton the best overall value. Our award evaluation process includes the ability to meet the Village's needs, price, expected fuel economy and emissions ratings, maintenance costs, local manufacture, manufacturer's warranty and serviceability as well as replacement parts discount and company references including manufacture of similar equipment and references.

The expected delivery date for the vehicle is, FOB Fire Hall, Clinton BC, by October 31, 2018.

The Village of Clinton reserves the right to not make any purchase or enter into a contract as a result of this request for proposal.

Thank you for your participation, and for further information please contact CFO Michael Liggins or CAO Monika Schitteck at 250-459-2261



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VILLAGE OF CLINTON RFP SPECIFICATION SHEET

VEHICLE TYPE: Fire Rescue Vehicle as per attached Specification - *This unit will be used by the Fire Department for duties typical to a heavy rescue vehicle primarily designed to provide the specialized equipment necessary for technical rescue situations such as traffic collisions requiring vehicle extrication, building collapses, confined space rescue, rope rescues and swiftwater rescues and will carry an array of special equipment such as the Jaws of life, and other forms of heavy equipment unavailable on standard trucks. This capability differentiates them from traditional pumper trucks or ladder trucks. It may be used in both highway and off road environments and must meet all the requirements of WorkSafe BC and OSHA. The machine should be of a sufficient design to accomplish these requirements and meet the requirements of the Motor Vehicle Act.*

	General Description	Requested Specifications	Proposed Alternate Specifications
1	Chassis specification	Page 1 to 3	
2	Body specification	Page 4 to 8	
3	Electrical specification	Page 9 to 15	
4	Paint and Finishing specification	Page 16 to 17	
5	Inspection; Quality Control, Delivery and Other specification	Page 18	

Note: All specifications are minimum acceptable specifications. Alternatives to the specified “brand names” will be acceptable, if of comparable performance and quality and approved by the Village of Clinton. Please provide information on quoted “Alternatives”, using additional sheets as required:

Expected Delivery Date

October 30, 2018

F.O.B. Point

Village of Clinton Fire Hall, 403 Le Bourdais Ave, Clinton, BC V0K 1K0



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Price Schedule

Description	Requested Specification Pricing	Proposed Alternate Specification Pricing
Base Cost - Fire Rescue Vehicle		
Cost of Options as applicable		
P.D.I. and Delivery		
Goods and Service Tax (GST)		
Provincial Sales Tax (PST)		
Environmental Levy		
Any Additional Costs (Specify)		
Sub Total		
Fleet and/or Government Discount		
TOTAL FIRE RESCUE VEHICLE COST		

NOTES:

Contact Name: _____ Phone: _____

Supply Signature: _____ Date: _____

COMPANY:

BIDDER INITIALS



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Bid Evaluation criteria

FACTOR	WEIGHTING
Price	25.0%
BC Bidder	20.0%
Availability / delivery timing	20.0%
Company experience with similar product and references	15.0%
Maintenance costs	10.0%
Green considerations ie: pollution control / energy efficiency	10.0%
Total	100.0%



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Page 1 of 18

Fire Rescue Vehicle Specification - Chassis

Chassis - Ford F550 (or Equivalent) (or Equivalent) - 4x4 - Crew Cab

One (1) new ordered 2018 model year Ford F550 (or Equivalent) cab and chassis will be supplied by the body builder with the following order codes:

W5H	2018 F550 4x4 Crew Cab 179" Wheelbase
PQ	Race Red
L	40/Console/40 Vinyl
S	Medium Earth Grey
660A	Preferred Equipment Package XL Trim
559	Front/Side Air Bags
572	Air Conditioner Transmission PTO Provision
99T	6.7L V8 Diesel
44W	6-Speed Automatic Transmission
TGB	225 Max Traction Tires
X8L	4.88 Limited Slip
17F	XL Décor Package
90L	Power Equipment Group Telescoping Mirrors, Power 19,500lb GVWR Package
47J	Fire/Rescue Emission System
98R	Operator Command Regeneration (OCR)
52B	Brake Controller
585	AM/FM/CD/Clock Radio
65Z	Aft of Axle Fuel Tank
68M	Payload Plus Upgrade
91M	SYNC System

Chassis - Suspension - Auxiliary Rear Spring Package

In addition to the factory rear suspension springs, auxiliary springs will be installed to assist in maintaining a level apparatus from front to rear.

Chassis - Exhaust and Heat Shields

The exhaust will be extended to the edge of the body near the rear wheels. Fabricated stainless steel exhaust heat shields will be provided to eliminate excessive heat transfer to the body. The shields will be installed to where the exhaust runs beneath the body to the point where the exhaust exits below the body side.

Chassis - Fuel Tank Filler - Supplied with Chassis

The fuel filler supplied with the chassis will be recessed into left body fender area.



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Page 2 of 18

Fire Rescue Vehicle Specification - Chassis

Chassis - DEF Tank Filler - Supplied with Chassis

The diesel exhaust fluid tank filler supplied with the chassis will be recessed into left body fender area.

Chassis - Mud Flaps - Front (pair)

Heavy duty front mud flaps will be supplied.

Chassis - Mud Flaps - Rear (pair)

Heavy duty rear mud flaps will be supplied.

Chassis - Running Boards - Ford F-550 - 4 Door Cab

Running boards will be custom fabricated utilizing NFPA high shine aluminum checker plate and 6061-T6 aluminum extrusions. The running boards will be installed below the left and right side cab doors and will run the full length of the cab.

Chassis - Grille Guard - Warn Gen II Trans4mer - Black

A Warn Gen II Trans4mer grille guard will be supplied and installed by bolting directly to the chassis frame. The complete unit will be supplied with a steel tubing upright/cross bar as the base grille guard, a winch carrier, and appropriate mounting brackets. This unit forms the foundation for any other Warn Gen II Trans4mer components. The grille guard will be powder coated black.

Chassis - Headlamp Guard - Warn Gen II Trans4mer - Black

A pair of Warn Trans4mer Gen II headlamp guards will be installed to give additional protection to the chassis head lamps. The guards will be powder coated black.

Chassis - Light Bar - Warn Gen II Trans4mer - Black

A black powder coated steel light bar kit will be supplied for use with the Warn Gen II Trans4mer grille guard. The bar will allow for the mounting of accessory front facing lights.

Chassis - Electric Winch - Fixed - Warn 9.5cti

A Warn 9.5cti electric winch will be supplied and hard mounted in the Warn Gen II Trans4mer winch carrier supplied with the grille guard. The compact winch will have a single line rated pull of 9,500lb's. The winch will come with a roller fairlead, remote control with a 12' lead, and 125' of 5/16" steel wire rope.

Chassis - Receiver - Side (each)

Two (2) receivers will be fabricated from steel complete with reinforced 2" square opening and finished with a black epoxy coating. The receiver assemblies will be attached to both chassis frame rails using 1" grade 8 bolts and each will extend below the respective body side with the opening near the body edge, forward of the rear axle. Each receiver will be rated for 10,000 pounds straight line pull based on a 2:1 safety and is to be used for rescue winches or for a rescue tie off.

Chassis - Receiver - Rear

A receiver will be fabricated from steel complete with reinforced 2" square opening and finished with a black epoxy coating. The receiver assembly will be attached to the chassis frame using 1" grade 8 bolts and extend below the body



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Page 3 of 18

Fire Rescue Vehicle Specification - Chassis

with the opening near the tailboard edge. The receiver will be rated for 10,000 pounds straight line pull based on a 2:1 safety and can be used for rescue winches, as a rescue tie off or for towing.

Chassis - Cab Console - Conventional

An aluminum console will be fabricated to meet the needs of the customer and will be have wrinkle powder coat finish. The console will at a minimum have a flat mounting surface sized to accommodate items such as siren or radio control heads, switch panels, remote starts, and the likes. The console will have storage at the rear with removable dividers for storage of binders, map books, or item of similar dimensions.

The console will be installed between the driver and officer seats of the conventional cab and will be fabricated so as not to interfere with the use of the 4x4 floor shifter.



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Page 4 of 18

Fire Rescue Vehicle Specification - Body

Body - Light Rescue - 60" CA

The body is engineered to provide correct weight distribution on the chassis and is built in accordance with the current requirements published by Underwriters' Laboratory of Canada.

The body will be mounted to a steel, 1/4" wall, tubular sub frame designed for use in a fire apparatus. The sub frame will be attached to the chassis by four flanged mounts, using 1" diameter grade eight bolts and nuts. The entire sub frame will be sandblaster, prepared, and sealed prior to installation on the chassis to prevent corrosion.

The aluminum body will be separate from the cab to allow for natural frame flex and will have the capability of being removed from the vehicle by unbolting the module from the chassis frame. The body will be fabricated from 1/8" and 3/16" H5052 H32 aluminum sheet and 6061-T6 extrusions utilizing long sheet forming techniques. The ends of the body sides and walls between compartments will be reinforced with 2" x 2 7/8" extrusion to provide rigidity.

The roof will be fabricated using hi-shine 1/8" checker plate, 1/8" H5052-H32 formed hat sections and 6061-T6 extrusions.

Full width aluminum wheel well liners will be provided to keep water and road salt away from the body. The liners will be bolted in using stainless steel bolts and the liner will be completely removable to provide access to the rear spring shackles.

Hi-Shine 1/8" aluminum checker plate will be used across the entire front body face to protect the painted finish of the body.

The side compartments shall be formed from individual compartment assemblies welded together into a unitized structure. The structure shall be designed with minimal parts to reduce the amount of welding required and minimize stress concentrators. Each respective body side will consist of a formed compartment and wheel well assembly spanning between the single compartment forward and single compartment aft with a single header across all the compartments. The header and compartments will be welded to the roof structure. Each of the compartments will be sealed to prevent moisture from entering the structure.

The rear face spanning between the body sides will be flush with the body side ends and fabricated from aluminum sheet. A rear facing compartment will be formed in the same fashion as the side compartments and welded into an opening cut into the rear face.

A polished aluminum trim will be provided around the perimeter of the compartment opening.

Within each compartment, whether ahead of or behind the rear wheels shall be of double wall construction. This shall provide a protected mounting area for electrical components and other recessed components if applicable while providing an aesthetic finish. Easily removable access panels in the compartments forward and rearward of the rear axle shall be provided for maintenance purposes.



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Fire Rescue Vehicle Specification - Body

Additionally, each compartment shall include a large sweep out at the leading edge of the compartment floor. This sweep out shall create a sealing surface at the bottom of the door and shall prevent any water at the door from running back into the compartment. Compartments without sweep outs may form water traps and are therefore not acceptable.

The bottom of all lower compartment floors will be reinforced, to prevent "oil canning".

Six (6) side facing compartments will be provided, three on left side and three on the right side. One (1) rear facing compartment will be supplied. For the purpose of clarity, the side facing compartments will be labeled L1, L2, and L3 for the driver side; R1, R2, and R3 for the passenger side. The rear compartment will be labeled RR. The compartments will have the following minimum clear door opening and usable compartment interior dimensions:

	Clear Door Opening: (Width x Height)	Compartment Interior: (Width x Height x Depth Above Chassis Frame/Depth Below Chassis Frame)
L1	27" X 59"	32" X 63" X Through to R1/22"
L2	41" X 34"	60" X 39" X 48"
L3	27" X 59"	32" X 63" X 22"
R1	27" X 59"	32" X 63" X Through to L1/22"
R2	41" X 34"	60" X 39" X 48"
R3	27" X 59"	32" X 63" X 22"
RR	47" X 41"	51" X 49" X 34"

All compartments where no permanently fixed trays or heavy equipment are located will be supplied with removable plastic interlocking tiles to allow air to circulate and to protect the compartment floor.

Each compartment will be supplied with an air vent located on the rear wall, to allow air to circulate and to allow moisture to escape.

Each side and rear facing compartment will be provided with Amdor Luma Bar LED compartment lights. They will be installed in each corner adjacent to the door opening to provide lighting the full height of the compartment.

A complete tailboard assembly measuring approximately 12 inches in length, will be bolted to the body using 1/2" spacers to allow for drainage and removal if damaged. Heavy-duty aluminum 3" x 3" x 3/16" angle and 3" x 2" x 3/16" edge extrusion will form the framework and substructure to provide a very rigid and strong standing platform for firefighters. The substructure will be covered with 1/8" high shine NFPA aluminum tread plate.

Body - Doors - Hinged - Single (each)

The left and right side compartment openings will be supplied with a single hinged recessed door of double-panned 1/8" aluminum sheet construction. The outer pan of each door will be flush with the body side when completely closed. Each door will seal against an automotive closed cell, semi-circular hollow tube, lining the



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Page 6 of 18

Fire Rescue Vehicle Specification - Body

compartment opening to provide a weatherproof seal. Hinges will be solid 1/4" cast stainless steel, bolted to the body and door, to provide years of trouble free service.

The door handles will be stainless steel D-Ring style with a two-stop door striker. The first striker will hold the door from opening even if the door is not fully closed. The second striker will hold the door in the fully closed and sealed position.

Compartments forward and rearward of the rear axle will be vertically hinged and compartments over the rear axle will be horizontally hinged along the top edge. Each door will be supplied with a minimum of one gas assist shock to help hold the door in the open position.

A pressure switch will be supplied in the corner of each compartment opening with a matching strike plate on the door. The switch will be used to trigger the door ajar system.

Body - Doors - Hinged - Double (each)

The rear facing compartment opening will be supplied with recessed overlapping double doors, each of double-panned 1/8" aluminum sheet construction. The first door will close and seal against a flange provided on the second door. The outer pan of each door will be flush with the body side when completely closed. Each door will seal against an automotive closed cell, semi-circular hollow tube, lining the compartment opening to provide a weatherproof seal. The doors will be vertically hinged and utilize hinges will be solid 1/4" cast stainless steel, bolted to the body and door, to provide years of trouble free service.

Each pair of doors will be supplied with a single stainless steel D-Ring style with a two-stop door striker for the overlapping door. The first striker will hold the door from opening even if the door is not fully closed. The second striker will hold the door in the fully closed and sealed position. An interior mounted, pull-to-release lever at the top of the second door will be provided within reach after the overlapping door is opened.

Each door will be supplied with a minimum of one gas assist shock to help hold the door in the open position.

A pressure switch will be supplied in the corner of each compartment opening with a matching strike plate on the door. The switch will be used to trigger the door ajar system.

Body - Tray - Slide Out - 70% Extension - 250lb (each)

Three (3) roll out trays will be installed in the specified compartments. Each tray will be constructed from 3/16" aluminum and will be attached to a pair of Grant rollout sliders rated for 250lb. The tray will be able to extend 70% of the sliders length and will have a 2" return lip around the perimeter with welded corners to give additional strength. A single gas shock will be installed below the tray to hold it in the stowed and extended positions.

Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed faces of each tray as possible.

Each tray will be as wide as feasible with the respective compartment door opening.

Mounted in the following compartments:



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Page 7 of 18

Fire Rescue Vehicle Specification - Body

- One (1) in compartment L2, approximately 47 inches in length
- One (1) in compartment R2, approximately 47 inches in length
- One (1) in compartment R3, approximately 33 inches in length

Body - Tray - Slide Out - 100% Extension - 600Lb, Medium (each)

Three (3) roll out trays will be installed in the specified compartments. Each tray will be constructed from 3/16" aluminum and will be attached to a set of aluminum Slide Master rollout sliders rated for 600lb. distributed weight capacity. The tray will be able to extend 100% of the sliders length and will have a 2" return lip around the perimeter with welded corners to give additional strength.

A single spring lock will be installed below the tray to hold it in the stowed and extended positions.

Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed faces of each tray as possible.

Each tray will be as wide as feasible with the respective compartment door opening.

Mounted in the following compartments:

- One (1) in compartment L1, above the chassis frame, approximately 47 inches in length
- One (1) in compartment R1, above the chassis frame, approximately 47 inches in length
- One (1) in compartment RR, approximately 33 inches in length

Body - Tray - Slide Out - Drop and Tilt - 200Lb, Medium (each)

Three (3) drop down roll out trays will be installed in the specified compartments. Each tray will be constructed from 3/16" aluminum and will be attached to a pair of aluminum 200 lb. Slide Master rollout and tip down sliders. The tray will have a 2" return lip around the perimeter to give additional strength.

A single spring lock will be installed below the tray to hold it in the stowed and extended positions.

Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed faces of each tray as possible.

Each tray will be as wide as feasible with the respective compartment door opening.

Mounted in the following compartments:

- One (1) in compartment L2, approximately 47 inches in length
- One (1) in compartment R2, approximately 47 inches in length
- One (1) in compartment RR, approximately 33 inches in length

Body - Shelf - Adjustable - 3/16" Small (each)

Four (4) adjustable shelves will be supplied and installed in the specified compartments complete with tracking to allow for height adjustment. Each shelf will be constructed form 3/16" aluminum plate with a 2" return lip around the perimeter with welded corners to give additional strength.



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Page 8 of 18

Fire Rescue Vehicle Specification - Body

Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed face of each tray as possible.

Each tray will be as wide as feasible with the respective compartment.

Mounted in the following compartments:

Two (2) in compartment L3, approximately 22 inches in length

Two (2) in compartment R3, approximately 22 inches in length

Body - Shelf - Adjustable - 3/16" - Extra Large (each)

One (1) adjustable shelf will be supplied and installed in the specified compartments complete with tracking to allow for height adjustment. Each shelf will be constructed from 3/16" aluminum plate with a 2" return lip around the perimeter with welded corners to give additional strength.

Each tray will be lined with removable rubber tile to allow for air circulation. Reflective red and white conspicuity striping will be applied to as much of the outward exposed face of each tray as possible.

Each tray will be as wide as feasible with the respective compartment.

Mounted in the following compartments:

1- L1 through to R1, approximately 96 inches in length and used to store basket stretcher & back board

Body - Anchor - Recessed - Eyelet (each)

Two (2) recessed ring style tie off anchors will be installed in the right side body fender, one forward and one rearward of the rear axle. Each anchor will utilize a natural finish, CNC machined billet aluminum 1 1/2" ID D-ring recessed with flange. All edges along the circumference will have a smooth 1/4" radius preventing damage to any ropes. The body will be reinforced at the mounting points allowing a maximum load rating of 2,500 pounds.

Body - Fenderettes - Rubber

The rear body fenders will be trimmed with black rubber fenderettes.

Body - Tow Loops - Rear - Outside (pair)

One (1) pair of chromed tow loops will be attached to the chassis frame and extend through precision cut opening in the rear face of the body. Each tow loop will have a flanged base that will seal against the rear body face.



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Page 9 of 18

Fire Rescue Vehicle Specification - Electrical

Electrical - Wiring Diagram

The completed apparatus will be delivered with an "as built" wiring diagram which will show individual wire colors, wire gauges, and describe all major components and accessories supplied.

Electrical - Base Wiring - Light Rescue

All 12-volt electrical equipment installed by the apparatus manufacturer shall conform to modern automotive practices and meet current ULC standards. Particular attention will be paid to the design of the vehicle electrical system to ensure that it will perform in high moisture and road salt environments normally encountered in Canada.

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the device shall not exceed 10 percent. The wiring, wiring harness and insulation shall be in conformance to applicable SAE and ULC standards with SXL and GXL temperature properties. Any exposed wiring shall be protected in a loom with a minimum 285°F 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. Wiring shall be color coded. Exterior exposed wire connectors shall be environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box, covered with a removable electrical panel or wrapped in a protective loom. The wiring shall be secured in place and protected against heat, liquid contaminants and damage.

Any holes made in the roof shall be caulked with silicon. Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof. When an electrical component is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it. Exposed area shall be defined as any location outside of the cab or body.

Electrical components designed to be removed for maintenance shall have a coil of wire provided behind the appliance allowing them to be pulled away from mounting area for inspection and service work. Corrosion preventative compound shall be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation (of the plug).

All reflectors, directional and clearance lights required to comply with Transportation Canada Standards, shall be furnished.

An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

As standard, all terminals exposed to the environment will be crimped and sealed with heat shrink tubing.



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Page 10 of 18

Fire Rescue Vehicle Specification - Electrical

A master switch will be provided in the cab near the driver's seat, which will be accessible to the driver.

All body electrical circuits will have a load test applied to ensure that no components/accessory will draw more than 80% of the circuit breaker rating.

An LED engine light, if not already supplied by the chassis manufacturer, will be provided to illuminate the engine compartment area; a switch will be located under the hood.

A buzzer system will be provided from the rear of the vehicle to the cab to assist the driver when starting, stopping or backing up the vehicle. A buzzer will be located in the cab and a push button will be located at the rear of the vehicle.

A back up alarm will be installed to operate when the reverse gear is engaged.

Electrical - Receptacle - Battery Charger

A chrome plated shoreline power receptacle with weatherproof cover will be provided on the driver side front face of the body and wired to the on-board battery charger.

Electrical - Receptacle - Trailer - 7 Way Round

A seven way heavy duty round receptacle will be provided at the rear of the apparatus complete with standard wiring for use with a trailer and will include wiring for the chassis supplied brake controller. The receptacle will include a spring loaded weather cover.

Electrical - Battery Charger - Kussmaul - Auto Charge 1200

A Kussmaul Auto Charge 1200 automatic battery charger with a maximum output of 40 amps at 12 volts will be supplied and installed. Remote, electronic voltage sensing stops the charger preventing overcharging and boil off conditions.

A Kussmaul Auto Charge Status Center will be supplied on the front body face, adjacent to the shoreline receptacle. The watertight unit shall provide LED digital voltage and amperage readout. The right side of the display shall have a five segment bar graph indicating output current. The left side of the display shall have four (4) LED color coded lights shall indicate battery condition.

Electrical - Switch Panel - Wired Rite - 6 Switches

The main emergency switches will be located in the main cab in a way that the switch panel will be easily accessible by both operators. The switch panel will be manufactured by Wired Rite Systems, and shall include a magnetic circuit breaker, which will not reset until the overload has been corrected.

A back lit label will identify each switch. The back lighting will have two levels of intensity. The low level lights will be activated when the vehicle lights or the ignition switch are turned on. The high level will be activated when the individual switch is turned on. The circuit will be on a printed circuit board and the lights shall be of the solid state type and have a 100,000 hour life span.



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Page 11 of 18

Fire Rescue Vehicle Specification - Electrical

A master switch shall be included in the main switch panel. The switch shall be labeled "Master" for identification and shall feature control over all devices wired through it. Any warning device switch left in the "ON" position shall automatically power up when the master switch is activated.

Any clear flashing warning lights will be interlocked with the chassis park brake system to provide two separate modes of operation. Mode one will call for right-of-way with any clear warning lights flashing with the coloured warning lights. The second mode will indicate blocking right-of way where the flashing clear lights will deactivate when the park brake is applied.

Electrical - Light Bar - Whelen Justice NFPA 10 LED - 56"

One (1) Whelen Justice 10 LED NFPA roof mounted light bar will be supplied and permanently installed to the vehicle roof. The light bar will contain 8 red super LED's and two front facing clear LED's. The vehicle roof will be reinforced as needed to withstand the mounting of the bar.

A switch will be provided in the cab.

Electrical - Siren - Whelen 295SLSC1

One (1) Whelen 295SLSC1 Siren Amplifier will be installed in cab console, within reach of the driver and officer positions. The siren amplifier shall incorporate a 12V/200W siren installed on an aluminum alloy chassis covered by a black polycarbonate powder coated housing for maximum protection. The 295SLSC1 shall have the ability for either 100 or 200 watt output and will include a removable unidirectional microphone.

The 295SLSC1 shall have 21 Scan-Lock™ siren tones with two manual functions for additional siren tones. The siren amplifier shall have a "Siren in Use" icon driver and adjustable preset repeat radio volume. The 295SLSC1 shall have a "Park Kill" feature that disables the siren when the vehicle is in park. The PTT (push to talk) switch on the microphone shall override all siren functions. The 295SLSC1 shall have a combination On/Off and horn ring transfer switch with Bipolarity horn/ring activation control. The 295SLSC1 shall have SI Test® capability to perform a complete diagnostic silent test of amplifier and speaker. The siren amplifier shall have a quick disconnect plug.

Electrical - Speaker - Whelen SA315P - Behind Bumper (each)

One (1) Whelen SA315P Projector series speaker will be supplied and mounted behind the front bumper.

Electrical - Mobile Radio - Customer Supplied Radio

The customer supplied mobile radio will be installed in the cab complete with roof mounted antenna.

Electrical - Map Light - Littlite - 12" LED (each)

One (1) Littlite LED map light with 12" flexible gooseneck will be supplied and installed on the cab console. The light will have two high output LED's one red and one white with a clear lens. The head will have a three position switch.

Electrical - Front - Whelen WION - Super LED (pair)

One (1) pair of forward facing Whelen WION super LED surface mounted warning lights will be installed. Each light shall be mounted to the front grille guard via custom aluminum brackets painted black to match. Each light will be



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Page 12 of 18

Fire Rescue Vehicle Specification - Electrical

complete with a chrome flange and rubber grommet. The light shall be 1" high by 4" wide and have a profile of 1 1/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.

Each light shall have six red super LEDs with clear lens and shall operate at 12 volts DC, drawing 0.4 amps.

Electrical - Hood - Whelen WION - Super LED (pair)

One (1) pair of side facing Whelen WION super LED surface mounted warning lights will be installed. Each light shall be mounted to the front grille guard via custom aluminum brackets painted black to match. Each light will be complete with a chrome flange and rubber grommet. The light shall be 1" high by 4" wide and have a profile of 1 1/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.

Each light shall have six red super LEDs with clear lens and shall operate at 12 volts DC, drawing 0.4 amps.

Electrical - Door Ajar Warning System - Side Body

An automatic door ajar system will be supplied, which will activate the compartment light when the door is open. A door ajar light and buzzer will be mounted in the cab. The light will be in clear view of the driver and will come on with the buzzer when any side compartment door is open and the park brake is disabled. The system will be disabled when the parking brake is applied.

Electrical - Ground Light - Amdor Luma Bar - 12" LED (each)

Six (6) Amdor Luma Bar H2O 12" LED ground lights will be installed, two under each side of the cab running boards and two under the rear tailboard. The lights under the cab doors will illuminate with the park brake being activated or by the respective door, should the park brake not be engaged.

All of the lights will be activated with the application of the park brake.

Electrical - Side Body - Whelen WION - Super LED (pair)

Two (2) pairs of side facing Whelen WION super LED surface mounted warning lights will be installed. Each light shall be mounted with two screws to the side of the body with a chrome flange and rubber grommet. The light shall be 1" high by 4" wide and have a profile of 1 1/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.

Each light shall have six red super LEDs with clear lens and shall operate at 12 volts DC, drawing 0.4 amps.

Mounted at the following locations:

One (1) pair on the body side fenders, one light each side over the rear wheels

One (1) pair on the tailboard sides, one light each side

Electrical - Rear Body - Whelen M6 - Super LED (pair)

One (1) pair of rear facing Whelen M6 super LED surface mounted warning lights will be installed. Each light shall be mounted with two screws to the opening warning light location in the rear taillight bezels. The light shall be 4 5/16" high by 6 3/4" wide and have a profile of 1 3/8" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.



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Page 13 of 18

Fire Rescue Vehicle Specification - Electrical

Each light shall have 18 red super LEDs and shall operate at 12 volts DC, drawing 2 amps. The lens shall be red in colour.

Electrical - Traffic Advisor - Whelen TAM83 - TIR3 Super LED

A Whelen TAM83 Traffic Advisor with eight (8) amber TIR3 super LEDs will be recessed into the rear face of the body using a polished aluminum trim to help protect it from damage. The traffic advisor will measure 1 3/4" high by 30 7/16" wide by 2 3/16" deep and draw 3.2 amps at 12 volts DC.

Control of the traffic advisor will be through the supplied TACTLD1 control head allowing a choice of four different flash patterns. A Center-Off rocker switch is used to turn the unit On and Off, in either High or Low power mode. The control head has an LED status display that provides a visual indication of the current light pattern.

The control head will be mounted at in the cab console

Electrical - Tail Lights - Whelen M6 - LED (pair)

A pair of Whelen M6 series tail lights will be supplied mounted in a chrome bezel for four (4) lights. Each assembly will include Whelen LED stop lights, LED turn lights, LED backup lights and a mounting location for an M6 series warning light.

Electrical - Rotators - Whelen L31H Super LED (pair)

A pair of Whelen L31H red super LED, low profile beacons will be supplied and installed at the upper rear portion of the body. Each light will measure 4 1/64" in height and will be capable of producing a simulated rotating flash pattern when activated.

These lights will be wired as cruise lights set to activate at a low intensity when the marker lights are activated and the apparatus is not in response mode.

Electrical - Clearance Light - Weldon - LED (each)

Five (5) Weldon LED clearance, marker and indicator lights will be provided as required by Canadian Motor Vehicle Safety Standards. The lower clearance lights mounted at the rear of the body will be recessed into the edge of the tailboard extrusion to reduce the chance of damage to the lights.

Electrical - Brow Light - Rigid - SR Series - 30" LED Spot/Flood (each)

One (1) Rigid Industries SR series low profile combination spot and flood light bar will be supplied and mounted to the bottom of the light mounting bar in Warn Gen II grille guard. Each light will measure 30" in length and 1 5/8" in height. Each light will have an extruded aluminum housing with integral thermal management and a durable polycarbonate lens.

Each light shall have 30 LED's and shall operate at 12 volts DC, drawing 11.43 amps. The light will have a GORE® pressure equalizing vent.

The light will be switched in the cab.



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Page 14 of 18

Fire Rescue Vehicle Specification - Electrical

Electrical - Push Up Light - FRC - Spectra LED 220W (each)

Two (2) Fire Research Spectra LED side mount push up telescopic lights shall be installed, one each side, to the front face of the body. Each light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall rotate 360 degrees. The outer pole shall be a grooved aluminum extrusion and qualify as an NFPA compliant handrail. The pole mounting brackets shall have a 2 3/4" offset. Wiring shall extend from the pole bottom with a 4' retractile cord.

Each lamp head shall have sixty (60) ultra-bright white LEDs, 48 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12 volts DC, draw 13 amps, and generate 15,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamp head shall be no more than 5 7/8" high by 14" wide by 3 1/2" deep and have a heat resistant handle. The lamp head and mounting arm shall be powder coated. The LED scene light shall be for fire service use.

A weatherproof on-off toggle switch shall be mounted in a switch box below each lamp head.

The lights will be sized so that when in the stowed position, the light heads do not sit above the roof line of the body.

Electrical - Generator - Honda EU3000is - 3kW

One (1) Honda EU3000 series generator will be supplied and mounted in the R3 compartment with a ratchet style strap system. The generator will feature a Honda GX2002T, 196cc OHV gasoline engine complete with a 12V electric start, low maintenance battery, circuit breakers and auto throttle. The generator will be capable of a maximum peak output of 3,000 watts, and a continuous output of 2,800 watts at 23.3 amps and 120 VAC.

The generator will be supplied with a 13 liter fuel tank.

Electrical - Outlet - Weatherproof - 110V (each)

Two (2) 110 volt outlets will be installed at the locations specified. Each of the outlets will include dual NEMA 5-15 receptacles and will be wired into the R3 compartment with a male plug for connection directly to the requested portable generator without sacrificing its portability.

Each outlet will have a spring loaded weatherproof cover will be provided over both of the receptacles.

Mounted in the following locations:

Two (2) at the rear body face, one each side

Electrical - Power Bar - 6 Outlet - 110V (each)

Two (2) 110 volt power bars, each with 6 NEMA 5-15 outlets, will be supplied and installed at the locations specified. Each power bar will be wired to the shoreline connection utilized by the on-board battery charger.

Mounted in the following locations:

One (1) in compartment L3; One (1) in compartment R3



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Page 15 of 18

Fire Rescue Vehicle Specification - Electrical

Electrical - Tripod Light - FRC - Spectra LED 240W (each)

Two (2) Fire Research Spectra LED tripod telescopic lights shall be provided, one each side, on the rear body face. Each light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall extend 40" and rotate 360 degrees. An internal brake shall slow the extension pole during lowering. The outer pole shall be a grooved aluminum extrusion. The folding legs shall be anodized aluminum tubing with plastic end caps. The fully extended tripod system shall exceed a height of 11'. Wiring shall extend from the pole bottom with a 4' retractile cord.

Each lamp head shall have sixty (60) ultra-bright white LEDs, 48 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 120 volts AC, draw 2 amps, and generate 20,000 lumens of light. The lamp head shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamp head angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamp head shall be no more than 5 7/8" high by 14" wide by 3 1/2" deep and have a heat resistant handle. A wire guard shall protect the lamp head glass. The lamp head and mounting arm shall be powder coated. The LED scene light shall be for fire service use.

Fire Research tripod truck mount bracket set shall be installed. The set shall include a lower base plate and an upper lock with a quick release spring loaded locking pin.

A weatherproof on-off toggle switch shall be mounted in a switch box below each lamp head.

The lights will be sized so that when in the stowed position, the light heads do not sit above the roof line of the body.



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Fire Rescue Vehicle Specification - Paint and Finishing

Paint - Body - Undercoating

The complete underside of the body will be coated using Core-Tek VPCI-368, a time proven coating that provides excellent protection. The coating will include the entire under portion of the body, the rear fender wells, and the inside of the body up to the level of the water tank. The coating meets ASTM B-117, G-85, D-1748 for salt spray, prohesion, and humidity.

Paint - Body - Single Axle - One Tone - Light Rescue

Only the highest quality polyurethane paint will be used, to provide a high luster and long lasting paint finish. The structure to be painted will have all hardware removed to ensure that all areas are protected by paint. The body will be thoroughly cleaned and sanded, before the base coat of epoxy is applied. Next, a coat of high build primer is applied and completely sanded to a smooth finish. A three step final finish provides a non-porous, chemical resistant surface giving a high sheen, acid resistant, long lasting finish.

The body will be painted and finished in one tone color to match the cab.

Paint - Hinged Door Finish - Painted - Single Tone (each)

The hinged doors will be prepared in the same fashion as the body and painted a single colour to match.

Paint - Compartment Interior Finish - Gray or Yellow Epoxy

The interior of all compartments will be prepared and painted with an epoxy trunk splatter finish. The color will be gray or yellow as determined at the pre-construction meeting.

Striping - Decal - Call 911 (pair)

One (1) pair of decals with the specified variation of 'Call 911' graphic will be supplied and applied to either the cab or body of the completed apparatus as directed by the customer.

Striping - Lettering - Cab Doors

Lettering 4" to 8" in height identifying the Fire Department name, and if required truck identification, will be applied to the cab doors. Font, colours, design and placement will be discussed with the department prior to application, as the apparatus nears completion.

To read:	Colours as follows:	Location:
'CLINTON'		
'FIRE DEPT.'	Gold reflective with black drop shadow	Front Cab Doors
'RESCUE'		
'No.1'	Gold reflective with black drop shadow	Rear Cab Doors



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Page 17 of 18

Fire Rescue Vehicle Specification - Paint and Finishing

Striping - Reflective 4" Side - Hinged Doors

A 4" wide reflective stripe shall be applied the full length of the body and cab sides, including the hinged doors. This stripe shall continue to the front face of the grille guard where space allows.

Colour:

White reflective

Striping - Reflective Chevron - Body Rear Complete

Chevron striping will be applied to the entire rear face of the body with the exception of items fixed to the rear of the body such as warning lights, handrails, beavertails etc. The striping will consist of a series of 6" reflective stripes angled towards the ground on the respective side of the vehicle.

Colours:

To be determined



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Page 18 of 18

Fire Rescue Vehicle Specification - Inspection; Quality Control, Delivery and Other

Label - Warning and Safety Label Package

The apparatus will be fitted with all the safety and warning labels required in the current standards publication by Underwriters' Laboratory of Canada.

Vehicle Inspection

The vehicle will be inspected at an authorized Provincial motor vehicle inspection station prior to delivery. The safety inspection decal will be affixed to the window.

Vehicle Clean Up and Detailing

Prior to the final delivery, the vehicle will be professionally cleaned and detailed.

Quality Control Check

The apparatus will undergo a full quality control inspection once the apparatus is completed; results of the quality control test shall be provided to the Village of Clinton.

Transportation Safety Kit

Transportation safety kit will be supplied, and will include:

- One (1) first aid kit.
- One (1) 2.5 lb. ABC fire extinguisher.
- One (1) set of dual faced triangular warning flares.
- One (1) reflective safety vest

Delivery and Orientation

The manufacturer will deliver the completed apparatus to the destination specified and provide at least one (1) day's orientation to the fire department on the operation of the main equipment supplied on the apparatus.