

**COUNTY OF NEWBERRY**  
**Purchasing Department, Post Office Box 156, Newberry, SC 29108**  
**Ph: (803) 321-2100 / Fax: (803) 321-2102**

**INVITATION FOR BIDS**

**BID NUMBER:** 2021-25

**DATE:** November 29, 2021

**OPENING DATE AND TIME:** December 21, 2021 @ 3:00 p.m.

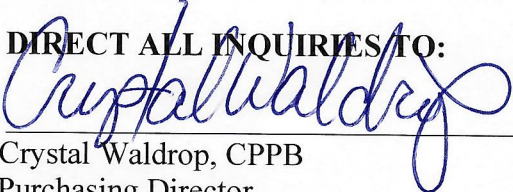
**SUBMITTAL ADDRESS:**

Newberry County Courthouse Annex, 1309 College  
Street, Newberry (Hand Delivered)  
Post Office Box 156, Newberry SC 29108  
(US Postal Service Delivered)

**PROCUREMENT FOR:** Fire Apparatus

**Subject to the conditions, provisions and the enclosed specifications, sealed bids will be received at this office until the stated date and time and then publicly opened. Any bid received after the scheduled deadline, will be immediately disqualified. The County assumes no responsibility for the delivery of bids which are mailed. BID NUMBER MUST BE SHOWN ON THE OUTSIDE OF ENVELOPE.**

**DIRECT ALL INQUIRIES TO:**

  
Crystal Waldrop, CPPB  
Purchasing Director  
Post Office Box 156  
Newberry SC 29108

**NOTICE TO BIDDERS:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this bid. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid. All amendments to and interpretations of this solicitation shall be in writing and issued by the Purchasing Director of the County. Newberry County shall not be legally bound by an amendment or interpretation that is not in writing.

**COUNTY OF NEWBERRY**  
**Purchasing Office, 1309 College Street, Post Office Box 156, Newberry S.C. 29108**  
**Ph: (803) 321-2100 / Fax: (803) 321-2102**

**BIDDERS SCHEDULE**

**BID NUMBER:** 2021-25

**DATE:** November 29, 2021

**OPENING DATE AND TIME:** December 21, 2021 @ 3:00 p.m.

**DEADLINE FOR SUBMITTING QUESTIONS:** December 15, 2020 by 5:00 p.m.

Via email to: [cwaldrop@newberrycounty.net](mailto:cwaldrop@newberrycounty.net)

**OPENING LOCATION:** Newberry County Courthouse Annex, Conference Room  
1309 College Street  
Newberry, SC 29108

**PROCUREMENT:** Fire Truck Apparatus

**Base Bid**            \$ \_\_\_\_\_

**\*Bids shall be good for forty-five (45) days from the date of submittal**

**VENDOR:** \_\_\_\_\_ **SIGNATURE:** \_\_\_\_\_

**Name of Authorized Contact:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone & Fax:** \_\_\_\_\_

**FEIN:** \_\_\_\_\_

**Contractor's SC License #:** \_\_\_\_\_

**There will NOT be a pre-bid meeting for this solicitation.**

**This equipment is being purchased on a bond through a bank that has not yet been determined.**



## **INSTRUCTIONS TO BIDDERS**

1. Only one copy of bid is required unless otherwise specified.
2. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid openings to be timely filed. It is the vendor's sole responsibility to ensure these documents are received by the purchasing office at the time indicated in the bid document.

### **PLEASE NOTE THE VENDOR IS ULTIMATELY RESPONSIBLE FOR VERIFYING THEY HAVE RECEIVED ANY/ALL ADDENDA PRIOR TO THE BID OPENING.**

3. When specifications or descriptive papers are submitted with the bid, enter bidder's name thereon.
4. Submit your signed bid on the bidder's schedule provided. Show bid number on envelope as instructed and the bid name or description. Newberry County accepts no responsibility for unmarked or improperly marked envelopes.
5. Bidders must clearly mark as "Confidential" each part of their bid which they consider to be proprietary information that could be exempt from disclosure under Section 30-4-40 Code of Laws of South Carolina, 1976, as amended, (also known as the Freedom of Information Act). The County reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the County or its agents for its determination in this regard.
6. By submission of a bid, you are guaranteeing that all goods and services meet the requirements of the solicitation during the contract period.
7. Tie bids will be resolved in accordance with the provisions of the Newberry County Purchasing Ordinance.
8. A copy of the bidder's W-9 shall be included in the submission.

### **GENERAL PROVISIONS**

1. The County of Newberry reserves the right to reject any and all bids, to cancel a solicitation, and to waive any technicality if deemed to be in the best interest of the County.
2. Unit prices will govern over extended prices unless otherwise stated in this bid invitation.
3. **PROHIBITION OF GRATUITIES:** South Carolina law and the Newberry County Purchasing Ordinance prohibit the giving of anything of value in return for favors or other preferential treatment in the purchasing process. Bidders should govern themselves accordingly.

4. **BIDDERS QUALIFICATION:**Bidders must, upon request of the county, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. The County reserves the right to make the final determination as to the bidder's ability to provide the products or services requested herein. Bidder determined to be irresponsible bidders are not allowed to bid to provide the County goods or services.
5. **BIDDERS RESPONSIBILITY:**Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this bid. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the contract.
6. **AWARD CRITERIA:**The contract shall be awarded to the lowest responsible and responsive bidder(s) whose bid meets the requirements and criteria set forth in the Invitation for Bid. Award may be made to one or a multiple of bidders, whichever deems to be in the best interest of the County, or unless otherwise stated on the bidder's schedule.
7. **WAIVER:**The County reserves the right to waive any Instruction to Bidders, General or Special Provisions, General or Special Conditions, or specifications deviation if deemed to be in the best interest of the county.
8. **COMPETITION:**This solicitation is intended to promote competition. If any language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested vendor to notify the Purchasing Director on in writing within five (5) days prior to the opening date. The solicitation may or may not be changed but a review of such notification will be made prior to the award.
9. **REJECTION:**Ambiguous bids which are uncertain as to terms, delivery, quantity, or compliance with specifications may be rejected or otherwise disregarded if such action is in the best interest of the County.
10. **RIGHT TO PROTEST:** Any prospective bidder, offeror, or contractor, who is aggrieved in connection with the solicitation of a contract shall protest in writing to the Purchasing Director within ten (10) calendar days of the date of issuance of the Invitation to Bid or other solicitation documents, whichever is applicable, or any amendment thereto, if the amendment is at issue. Any actual bidder, offeror, or contractor, who is aggrieved in connection with the intended award or award of a contract, shall protest in writing to the purchasing director within ten (10) calendar days of the notification of intent to award or statement of award.



11. **PROTEST PROCEDURE:** A protest shall be in writing, submitted to the purchasing director, and shall set forth the specific grounds of the protest with enough particularity to give notice to the issues to be decided.

### **GENERAL CONDITIONS**

1. **DEFAULT:**In case of default by the contractor, the County reserves the right to purchase any or all items in default in the open market, charging the contractor with any excessive costs. Should such charge be assessed, no subsequent bids of the defaulting contractor will be considered until the assessed charge has been satisfied.
2. **NON-APPROPRIATION:**Any contract entered into by the County resulting from this bid invitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period or appropriated year.
3. **HOLD HARMLESS AND INSURANCE:** The successful bidder shall indemnify and hold harmless the County of Newberry and all County officers, agents and employees against all suits or claims for personal injury or property damage resulting from, or arising from, the successful bidder's performance of the contract, as well as against any suits or claims of any character brought against the County or its agents or employees by reason of any claim of infringement of any patent, trade mark, trade dress, or copyright, including reimbursement to the County for all attorney's fees and court costs incurred by the County in defending itself or its agents or employees against any such claim or suit. **In addition, the successful bidder will maintain a public liability policy with minimum limits of \$500,000 per occurrence, or \$1,000,000 single limit, for damages arising from acts which occur during the contract period, with the County of Newberry named as an additional insured on the policy; the successful bidder shall also maintain workers compensation and vehicle liability insurance in the amounts required by statutory law.** Proof of such coverage will be provided upon demand or as otherwise provided in the bid specifications.
4. **CONTRACT ADMINISTRATION:**Questions or problems arising after award of this contract shall be directed to the Purchasing Director, P.O. Box 156, Newberry, SC 29108, or by calling 803-321-2100.
5. **FORCE MAJEURE:**The Contractor shall not be liable for any excess costs if the failure to perform the contract arises out of causes beyond the control and without fault or negligence of the contractor. Such causes may include, but are not restricted to acts of God or of a public enemy, acts of Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without the fault or negligence of the contractor. If the failure to perform is caused by



default of a subcontractor, and if such default arises out of causes beyond the control of both the contractor and subcontractor and without excess costs for failure to perform, unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the contractor to meet the required delivery schedule.

6. **PUBLIC RELEASE:** Contractor agrees not to refer to award of this contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by the User.
  
7. **QUALITY OF PRODUCT:** Unless otherwise indicated in this bid it is understood and agreed that any items offered or shipped on this bid shall be new, in first class condition, and without defect that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging and shipping to the specified destination in Newberry County. No demonstration models shall be sold as new, without prior written permission of the County.
  
8. **S.C. LAW CLAUSE:** Upon award of a contract under this bid, the person, partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State, by submission of this signed bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.
  
9. **ASSIGNMENT:** No contract or its Provisions may be assigned, sublet, or transferred without the written consent of the Purchasing Director.
  
10. **AFFIRMATIVE ACTION:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.
  
11. **DELIVERIES:** Delivery shall be to a designated location in the County of Newberry.
  
12. **APPROPRIATE S.C. SALES TAXES, FEES AND PERMITS** shall be included in the Vendor's base bid. The South Carolina tax cap for vehicles is \$500.00 and shall be reflected in base bid; however, the County will pay the sales taxes at the time the title is applied with the SC Department of Motor Vehicles.



13. **PAYMENT TERMS:** Payment will be made when all work is completed and accepted by Newberry County as meeting the specifications here within. **The purchase of this equipment is through a bond; therefore, the bank shall hold the title to the equipment. The bank will be determined and given to the awarded vendor.**
14. **BID BOND:** For each bid in excess of \$25,000.00 each bidder will submit with their bid a bond in the amount of 5% of the total price of the bid submitted. The bid bonds will be returned to the unsuccessful bidders once the county accepts the lowest most responsive bid. If the most responsive bidder fails to perform the responsibility of the bid within 10 days of the award, then the bid bond will be forfeited to the county as liquidated damages and the next lowest bidder will be awarded the bid. Bid bonds may be in the form of a surety, a cashier's check or an unconditional letter of credit in favor of Newberry County issued by a commercial bank in South Carolina.
15. **PERFORMANCE AND PAYMENT BONDS:** The chosen vendor will be required to submit to the County both a performance bond and payment bond in the amount of 100% of the contract price before commencing with the work. **Both bonds will be issued from a surety company with an "A" minimum rating of performance as stated in the most current publication of Best Key Rating Guide, Property Liability.**
16. **Compliance with The South Carolina Illegal Immigration Act:** By submitting an offer, Bidder certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina code of Laws (originally enacted as Section 3 of The South Carolina Illegal Immigration act, 2008 S.C. Act No. 280) and agrees to provide upon request any documentation required to establish either: (a) the applicability of Title 8, Chapter 14 to Bidder and any subcontractor or sub-subcontractors; or (b) the compliance with Title 8, Chapter 14 by Bidder and any subcontractors or sub-subcontractors. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both". Bidder agrees to include in any contracts with its sub-contractor's language requiring the subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in any contracts with the sub-sub-contractor's language requiring the sub-subcontract to comply with the applicable requirements of Title 8, Chapter 14.

**ANY AND ALL REFERENCE TO A SPECIFIC BRAND MAY BE SUBSTITUTED FOR AN EQUIVALENT. THE COUNTY WILL DETERMINE IF SUBSTITUTIONS ARE ACCEPTABLE**

**SCOPE AND GENERAL REQUIREMENTS**

It is the intent of the manufacturer to provide a new fire apparatus that will withstand the continuous use encountered in the emergency firefighting service. The apparatus shall be of the latest type, symmetrically proportioned and constructed with due consideration of the load to be sustained.

All parts not specifically mentioned herein, but which are necessary in order to furnish a complete fire apparatus, shall be furnished and shall conform to the best practices known to the fire apparatus industry.

The unit is to be of current year manufacture and is to be new and unused.

These specifications shall be construed as minimum. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and may be submitted.

**PRIME BIDDER, MANUFACTURER**

The manufacturer shall be prime bidder and shall identify the location of their facility.

**BIDDERS BACKGROUND**

Bids are requested from responsible manufacturers who are engaged in the manufacture of fire apparatus. To insure reliable and complete acceptance of the apparatus, bidder shall provide proof of past performance from other entities as reference.

**FAMA COMPLIANCE**

The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA) and must provide certificate of membership.

**FAIR, ETHICAL AND LEGAL COMPETITION**

In order to ensure fair, ethical, and legal competition the apparatus manufacturer shall not have had or ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

**PROPRIETARY PARTS**

It is the intention of the purchaser for all bidders to furnish the apparatus with major parts commonly used by the heavy-duty truck manufacturers and open market vendors whereas replacement parts



are more readily available and at reduced cost. The use of proprietary parts may not be acceptable to the purchaser.

### **MANUFACTURER'S DISCRETION**

Materials, parts, or procedures used are subject to change at manufacturer's discretion at any time to provide equal or better products.

### **PRODUCT QUALITY AND WORKMANSHIP**

The components provided and workmanship performed shall be of the highest quality available for this application. Special consideration shall be given to the following areas:

- A). Accessibility to various components that require periodic maintenance or lubrication checks.
- B). Ease of vehicle and pump operation.
- C). Features beneficial to the intended operation of the apparatus.

Construction of the complete apparatus shall be designed to carry the loads intended to meet the road and terrain conditions and speed requirements desired when specified by the purchaser.

Welding shall not be employed in the assembly of the apparatus in a manner that will prevent the removal of any major component part for service and/or repair.

### **INSURANCE REQUIREMENTS**

Each bidder must submit with their bid proposal a Certificate of Insurance listing the proposed manufacturer's product liability insurance coverage. Liability insurance shall be a minimum amount of two (2) million dollars. Submitted certificate shall name the apparatus manufacturer, insurance company, policy number, and effective dates of the insurance policy. Bids submitted without the required certificate will be considered nonresponsive and automatically rejected. No exceptions are allowed to the minimum insurance coverage requirement.

The manufacturer shall maintain full insurance coverage on the purchaser's cab and chassis from time of first possession by the manufacturer until the apparatus is delivered and accepted by the purchaser (No Exceptions). Purchaser reserves the right to require proof of insurance from the manufacturer's insurance carrier prior to entering into a contract for the apparatus.

### **PAYMENT TERMS**

Full payment for the apparatus shall be made at time of delivery of the completed vehicle. Due to insurance liability, the apparatus will not be left at the purchaser's location without full acceptance and payment or prior agreement between the Purchaser and Bidder.

## **VEHICLE ACCEPTANCE AND DELIVERY**

The fuel tank and DEF tank (if applicable) shall be filled upon final delivery to Newberry County.

## **ONE YEAR APPARATUS WARRANTY**

The complete apparatus detailed herein shall be warranted against defects in materials and workmanship for a period of twelve (12) months, effective upon pick up or delivery of the completed apparatus to the purchaser, as detailed in the respective warranty documents. Any unauthorized alterations or modifications to the apparatus shall void this warranty.

Other warranties, as provided by individual component manufacturers may extend beyond this warranty.

## **APPARATUS BODY WARRANTY, TEN YEARS**

The apparatus body as detailed herein shall have a structural warranty against defects in materials and workmanship for a period of ten (10) years, effective upon final payment in full by the County, and pick up or delivery of the completed apparatus to the County. Any unauthorized alterations or modifications to the body shall void this warranty.

## **PAINT WARRANTY, FIVE YEARS**

The finish paint as used on the proposed apparatus shall be warranted against defects in materials and workmanship for a prorated period of five (5) years, effective upon final payment in full by the Purchaser, and pick up or delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the apparatus shall void this warranty.

## **APPARATUS ELECTRICAL WARRANTY, TWO YEARS**

The apparatus electrical system as detailed herein shall have an electrical warranty against defects in materials and workmanship for a period of two (2) years, effective upon final payment in full by the Purchaser, and delivery of the completed apparatus to the Purchaser. Any unauthorized alterations or modifications to the electrical system shall void this warranty.

## **APPARATUS DIMENSIONS**

These are standard truck dimensions. Changes in configuration or additional options may affect these dimensions. The contract specification shall contain the exact dimensions.

## **OVERALL HEIGHT**

The overall height shall be less than 96.00".



## **OVERALL LENGTH**

The overall length shall be no longer than 26.00'.

## **OVERALL WIDTH**

The overall width of the body shall be 96.00" wide; chassis mirrors will extend out past this width.

## **ANGLE OF APPROACH**

The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1901/ 1906.

## **ANGLE OF DEPARTURE**

The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1901/ 1906.

## **COMPLIANCE**

The fire apparatus shall be built to the purchaser's requirements in compliance to all State, Local, and Federal highway safety requirements. The vehicle is not intended to meet any or all standards of the NFPA.

## **CAB SAFETY SIGNS**

The following safety signs shall be provided in the cab:

- One (1) FAMA 10 sign shall be visible to the driver. "Flying Object Crash Hazard. All equipment required to be used in emergency response must be securely fastened. Loose items may injure or kill during a crash."
- One (1) FAMA 07 sign shall be visible from each seat. "Crash Hazard. Occupants must be seated and belted when vehicle is in motion. Use only OEM approved belts. Unbelted occupants
- One (1) FAMA 15 sign shall be visible from each seat. "Crash Hazard. Do not wear helmet while seated. Serious head or neck injury may result from helmet use in cab. Failure to comply may injure or kill."
- One (1) FAMA 17 sign shall be visible to the driver. "Backing Hazard. Ensure that personnel are clear before driving in reverse. Always use a spotter when backing. Failure to comply may injure or kill."

- One (1) FAMA 42 sign shall be inside of the driver door. "Sirens produce loud sounds that may damage hearing. Roll up windows. Wear hearing protection. Use only for emergency response. Avoid exposure to siren sound outside of vehicle."
- "Do Not Move Apparatus When Light Is On" sign adjacent to the warning light indicating a hazard if the apparatus is moved (as described in subsequent section).

**"NO RIDE" LABEL**

A label shall be located on the vehicle at the rear step areas, and at any cross walkways, if they exist. The label(s) shall warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

**COMMERCIAL CHASSIS SPECIFICATION**

**CHASSIS PROVIDER**

The chassis, as detailed in these specifications, shall be ordered, and supplied by the apparatus manufacturer.

**CHASSIS**

One (1) new FORD F-550 rear axle drive 4x4, dual rear wheels (DRW), four (4) door crew cab and chassis with XL trim.

Wheelbase: 203.70"  
 Cab to Axle: 84.00"

**POWERTRAIN**

Power stroke 6.7L V-8 OHV direct diesel injection 32 valve intercooled turbo diesel engine.

Rated Brake Horsepower: 300 HP @ 2800 RPM

Rated Torque: 660 lb.-ft. @ 1,600 rpm

Stationary Elevated Idle Control, SEIC

Exhaust System: horizontally mounted, discharge on right side aft of wheels



**TRANSMISSION**

TorqShift 10-speed automatic with selectable drive modes.

**FIRE/ RESCUE PREP PKG w/EPA SPECIAL EMISSIONS (LPO)**

Includes 7,000 lbs. max front springs/GAWR rating for configuration selected. Incomplete vehicle package - requires further manufacture and certification by a final stage manufacturer. Ford urges Fire/Rescue Vehicle manufacturers to follow the recommendations of the Ford Incomplete Vehicle Manual and the Ford Truck Body Builders Layout Book (and pertinent supplements). NOTE 1: Stationary Elevated Idle Control (SEIC) has been integrated into the engine control module. NOTE 2: Engine calibration significantly reduces the possibility of depower mode when in stationary PTO operation. NOTE 3: Operator commanded regen allowed down to 30% of DPF filter full, instead of 100%. NOTE 4: Must meet the definition of an Emergency Vehicle, an Ambulance or Fire Truck per 40 CFR 86.1803.01 in the Federal Register. NOTE 5: California Code of Regulations allows for the sale of Federally certified emergency vehicles in California.

Includes:

- Dual Extra Heavy-Duty Alternators (Total 377-Amps)
- Operator Commanded Regeneration (OCR) Includes active regeneration inhibit.

**MANUAL REGENERATION**

A push button switch on the dash to initiate manual DPF regeneration.

Fuel Tank: 40 gallon aft-axle with auxiliary fuel tap, to provide fuel to an auxiliary truck body mounted diesel engine (if applicable).

**REAR AXLE RATIO**

The ratio of the rear axle shall be 4.10 limited slip.

**FORD SUPERDUTY WARRANTY**

<b>Description</b>	<b>Months/Distance</b>
Basic.....	36 month/36,000 miles
Powertrain.....	60 month/60,000 miles
Corrosion Perforation.....	60 month/unlimited mileage
Roadside Assistance .....	60 month/60,000 miles
Diesel Engine .....	60 month/100,000 miles

## **CHASSIS PAINT COLOR**

The cab shall be painted a single color by the chassis manufacturer.

**Color:** Ford Race Red

**Paint Number:** PQ

## **CHASSIS MODIFICATIONS**

The following modifications and installations shall be performed on the chassis upon delivery to the apparatus manufacturer:

### **STEP BARS**

One (1) set of black powder coated steel step bars shall be mounted to each side of the chassis. There shall be a slip resistant step pad located below each chassis door.

### **FRONT MOUNTED WINCH**

A WARN model M12000 electric winch with 12,000 pound (5,440 kg) rated line pull shall be installed in the brush guard. The winch shall be equipped with 125.00' of 3/8" diameter wire rope, clevis hook and a 4-way roller fairlead. The winch shall be operated through a 12.00' pendant with a handheld control. The winch shall include an automatic mechanical cone brake. It shall feature an easy to use free-spooling rotating ring gear clutch.

### **GRILLE GUARD**

A Warn model 98090 Trans4mer Gen II grille guard shall be provided and installed on the front of the chassis. The grille guard kit shall be provided with a black finish.

### **HEADLAMP GUARD**

A Warn model 98095 Trans4mer Gen II headlamp guard kit shall be installed. The headlamp guard kit shall attach to the grille guard. The headlamp guard kit shall be provided with a black finish.

### **WINCH CARRIER - LARGE FRAME - BLACK FINISH**

A Warn model 90110 large frame winch carrier shall be installed in grille guard. It shall be capable of carrying Warn winch models 16.5ti, M15, M12, and M8274-50.

The winch carrier shall have a powder coated black finish.



## **TOWING HITCH RECEIVER**

A trailer towing hitch receiver with safety chain anchors shall be installed at the rear of the apparatus.

The hitch receiver shall be constructed of heavy steel tubing and reinforced to the apparatus framework. The hitch receiver shall have a Class V rating of 16,000 pounds towing and 1,600 pounds tongue weight when used with a weight distributing hitch assembly.

The receiver shall accept a 2.00" hitch.

One (1) 7-prong connector with a weatherproof cover shall be supplied and mounted near the rear receiver tube.

## **TIRE PRESSURE MANAGEMENT**

There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires.

The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery-operated LED when the pressure of that tire drops 5 to 8 psi.

Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.

## **WHEEL COVERS**

Each wheel shall have one (1) stainless steel wheel cover installed.

## **CHASSIS TOW HOOKS**

The front tow hooks shall be provided as detailed in the chassis specifications.

## **TOW HOOKS – REAR**

Two (2) heavy-duty cast-iron tow hooks, shall be installed at the rear of the body above the rear step. The tow hooks shall be installed, one (1) on each side, bolted to the chassis frame rails.

## **FRONT MUD FLAPS**

A pair of black rubber mud flaps shall be provided as detailed in the chassis specifications.

## **REAR MUD FLAPS**

A pair of black rubber mud flaps, with the Manufacturer's logo, shall be provided and installed behind the rear wheels.

## **CENTER CONSOLE**

A center console fabricated from aluminum shall be furnished and shall be located between the driver and officer's seats.

The forward area of the console shall have a mounting surface for emergency lighting switch panels and/or electronic siren control boxes within reach of the driver or officer.

## **SEATING MODIFICATION**

The center portion of the 40/20/40 split bench seat shall be removed to accommodate the installation of the specified console.

## **BATTERY SYSTEM**

The battery system shall be supplied with the chassis.

## **MASTER BODY DISCONNECT SWITCH**

A master body disconnect on/off switch shall be provided in the cab, near the driver's door. The switch shall disconnect the power to the apparatus body when the ignition switch is in the off position.

One (1) reset breaker shall be installed between the solenoid output and any electrical load.

One (1) indicator light shall be provided to indicate the apparatus 12-volt system is on. The light shall be located in the chassis cab and be visible from the driver's positions. The light shall be green in color and labeled "Master Battery".

## **BATTERY CHARGER, BUILT-IN BATTERY SAVER**

One (1) Kussmaul Auto Charge 1000 PLC, model #091-215-12, 15-amp battery charger and 3-amp battery saver shall be installed.

The Auto Charge 1000 PLC with Parasitic Load Compensation (PLC) is a compact, microprocessor controlled, completely automatic, single channel battery charger designed for vehicles with a single battery system. The PLC charger is designed to withstand the shock and vibration encountered by vehicle mounted equipment.



The battery saver component shall eliminate drain on vehicle's battery system when vehicle is not in use. The system shall automatically disconnect auxiliary vehicle loads from battery when the charger is energized.

Parasitic Load Compensation feature is designed specifically to meet the heavy-duty requirements of emergency vehicles. Parasitic load compensation allows you to input the total number of parasitic load amps on the vehicle. Then the charger will shift the absorption stage set point so the battery voltage will drop to the float voltage when the desired current is reached. This will lead to a longer battery life and no overcharging or overheating.

The charger shall have the following operational specifications:

- a) 120 volts AC input at 3.5 amps
- b) Battery Charger: 12 volts DC output at 15 amps
- c) Battery Saver: 3 amps 12-volt DC output
- d) 8 Pin Selector Switch on front panel
  - a. Battery Type: Lead-Acid, Gel Cell, AGM or Odyssey
  - b. Float / 3-Step
  - c. Battery Saver ON/OFF
  - d. Parasitic Load Compensation
- e) AC power applied light on front panel
- f) System LED Status Indicator on front panel
- g) Dimensions of 9.35" high x 5.9" wide x 4.725" deep and weighs 11 lbs.

### **120 VOLT SHORELINE CONNECTION - "SUPER" AUTO EJECT**

One (1) Kussmaul "Super" Auto Eject model 091-55-20-120, automatic, 120-volt, 20-amp shoreline disconnect shall be provided for the on board, 120-volt battery charging systems.

### **AUTO-EJECT MATING PLUG**

A Kussmaul model # 5-20P-H, 20 amp mating female cord end shall be shipped loose with the apparatus to allow the Fire Department to connect cord end to a Fire Department provided charging cord.

### **BATTERY CHARGER DISPLAY/ COVER**

One (1) Kussmaul model 091-55-234-YW universal single battery bank voltage display/ auto eject cover shall be supplied with the charger.

The cover shall be yellow in color.

## **SHORELINE RECEPTACLE LOCATION**

The shoreline receptacle shall be located on the left-hand side of the apparatus in a pre-determined location by the manufacturer.

## **BACK-UP ALARM**

One (1) 97 DB back up alarm shall be provided and installed at the rear of the unit. It shall be wired to activate when the transmission is placed in reverse.

## **UTILITY BODY & RELATED COMPONENTS**

### **OVERALL DIMENSIONS**

The body shall be 132.00" Long x 94.00" wide x 40" high with fender well positioned for an 84.00" cab-to-axle dual rear wheel chassis. The cargo bed floor width shall be 54" wide.

### **COMPARTMENT CONFIGURATION**

There shall be a total of eight (8) flush floor body side compartments; three (4) on each side. A rear access open top cargo compartment shall run the length of the body, between the side compartments.

The compartments shall be completely formed of .125" 5052-H32 aluminum alloy and shall have a tested floor area load of 300 pounds combined with a shelf load of 250 pounds.

### **HINGED DOORS**

All lower compartment doors shall be equipped with Hinged style Doors.  
The roll-up doors shall not be supplied with locks.

### **COMPARTMENT LIGHT(S)**

One (1) full height Luma Bar LED strip light(s) shall be installed inside each of the body compartments.

The compartment light(s) shall be controlled by a magnetic "On-Off" switch located on each compartment door.

### **LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L1**

There shall be one (1) Hinged door that is approximately 33.5" wide and approximately 38" high.



### **ADJUSTABLE SHELVING TRACKS**

There shall be vertically mounted uni-strut shelf trac for shelving installation.

### **ADJUSTABLE SHELF**

There shall be One (1) adjustable shelf located in the compartment.

### **LEFT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, L2**

There shall be one (1) Hinged door that is approximately 24" wide and approximately 38" high.

### **ADJUSTABLE SHELVING TRACKS**

There shall be vertically mounted uni-strut shelf trac for shelving installation.

### **ADJUSTABLE SHELF**

There shall be One (1) adjustable shelf located in the compartment.

### **LEFT SIDE COMPARTMENT OVER WHEEL WELL AND BEHIND REAR WHEELS, L3 AND L4**

L3 shall be approximately 49" wide and approximately 18" high

L4 shall be approximately 25.5" wide and approximately 38" high.

### **ADJUSTABLE SHELVING TRACKS**

There shall be vertically mounted uni-strut shelf trac for shelving installation.

### **ADJUSTABLE SHELF**

There shall be One (1) adjustable shelf located in the compartment.

### **RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R1**

There shall be one (1) Hinged door that is approximately 33.5" wide and approximately 38" high.

### **ADJUSTABLE SHELVING TRACKS**

There shall be vertically mounted uni-strut shelf trac for shelving installation.

### **ADJUSTABLE SHELF**

There shall be One (1) adjustable shelf located in the compartment.

### **RIGHT SIDE COMPARTMENT IN FRONT OF REAR WHEELS, R2**

There shall be one (1) Hinged door that is approximately 24" wide and approximately 38" high.

### **ADJUSTABLE SHELVING TRACKS**

There shall be vertically mounted uni-strut shelf trac for shelving installation.

### **ADJUSTABLE SHELF**

There shall be One (1) adjustable shelf located in the compartment.

### **RIGHT SIDE COMPARTMENT OVER WHEEL WELL AND BEHIND REAR WHEELS, R3 AND R4**

R3 shall be approximately 49" wide and approximately 18" high

R4 shall be approximately 25.5" wide and approximately 38" high.

### **ADJUSTABLE SHELVING TRACKS**

There shall be vertically mounted uni-strut shelf trac for shelving installation.

### **ADJUSTABLE SHELF**

There shall be One (1) adjustable shelf located in the compartment.

### **REAR BODY CONFIGURATION, OPEN**

The cargo area of the apparatus body shall be left uncovered for the installation of a skid unit.

### **FUEL FILL W/ ACCESS DOOR**

One (1) Cast Products aluminum fuel fill with a hinged access door shall be installed in the left-hand side wheel well rear of the axle. It shall be labeled "Ultra Low Sulfur Diesel Fuel Only".

### **DEISEL EXHAUST FLUID FILL**

The diesel exhaust fluid fill shall be located in between the body and the chassis on the left-hand side. It shall be labeled "Diesel Exhaust Fluid Only".



## **EXTERIOR GRAB RAILS**

Each grab rail shall be non-slip, 1.25" diameter extruded polished aluminum grab rails with rubber inserts designed to provide maximum gripping ability, strength, and durability. The rails shall comply with NFPA 1901-2009.

## **GRAB RAILS, REAR STEP, VERTICAL**

Two (2) extruded aluminum non-slip grab rails, approximately 24.00" in length, shall be provided and vertically mounted on the rear of the apparatus, one (1) on each side of the body.

## **12 VOLT ELECTRICAL SYSTEM**

The truck shall have a 12-Volt electrical system. All wiring will be run in convoluted high temperature plastic loom. The wiring shall be color-coded, numbered, and function imprinted for permanent identification. All wiring devices shall be rated to carry 125% of the maximum ampere load for which the circuit is protected. All added electrical equipment shall be served by circuits separate and distinct from the chassis circuits. All solenoids, relays, and terminal blocks will be located in an easily accessible area. All circuits provided shall have properly rated low voltage over current protective devices. All electrical will be accordance with modern automotive wiring standards. All under side terminal junctions shall be fully enclosed in sealed plastic weatherproof boxes.

## **ELECTRICAL SYSTEM (CHASSIS OEM)**

The commercial chassis electrical system shall be furnished and installed by the chassis manufacturer and shall not be altered in any way so as to void or diminish the manufacturer's warranty responsibilities. Body builder wiring interface harnesses shall be specific to the chassis being utilized and the apparatus specifications with all such harnesses, circuits and connections being documented by the body builder and made part of the electrical schematics provided with the completed apparatus.

## **ELECTROMAGNETIC INTERFERENCE PROTECTION**

The apparatus shall incorporate modern electrical system design, installation procedures, grounding techniques and wave generating components to provide the highest level of protection against electromagnetic (EMI) and radio wave frequency (RFI) interferences.

The apparatus shall be designed to operate and correctly function in congested municipal environments as well as industrial or concentrated commercial scenes without adverse effects from either EMI or RFI. Communications equipment installed after the apparatus is delivered shall be immediately tested by the installer for reception and transmission signal quality.

## **CHASSIS GROUND LIGHTS**

LED ground lights with outward facing angle brackets shall be installed, one (1) under each chassis door.

## **FRONT OF BODY GROUND LIGHTS**

Two (2) LED ground lights with outward facing angle brackets shall be installed under the front of the body. One (1) light shall be located on the driver side and one (1) light shall be located on the officer side of the apparatus.

## **REAR STEP GROUND LIGHTS**

Two (2) LED ground lights with outward facing angle brackets shall be installed under the rear step of the apparatus, one (1) each side.

## **GROUND LIGHT SWITCHING**

The cab and body ground lights shall activate by engaging the parking brake.

## **HAZARD LIGHT**

One (1) Whelen model 0SR00FCR flashing red LED light, located in the driving compartment, the light shall be illuminated automatically whenever any compartment door is ajar.

The hazard light shall be marked with a sign that reads "Do Not Move Apparatus When Light is On".

The warning light shall be interlocked to the parking brake and shall only alert the driver when the parking brake is released. The light shall also be used to signal that other ancillary equipment such as racks light towers etc. are not in their "ready for transport" position.

## **REAR DIRECTIONALS**

Rear directional lighting shall be supplied as follows:

Two (2) Whelen model M6BTT LED brake/taillights shall be installed on the rear of the body. Each light shall have a red lens.

Two (2) Whelen model M6T Amber LED turn signal lights with a populated arrow shall be installed on the rear of the body. Each light shall have a color lens.

Two (2) Whelen model M6BUW LED reverse lights shall be installed on the rear of the body.



## **HOUSINGS FOR DIRECTIONALS**

The two (2) sets of Whelen rear signal lights shall each be housed in a vertical chrome plated housing, designed to hold four (4) lights each. The lower section of each casting shall contain the rear lower warning lights as described in the emergency lighting specifications.

## **DOT MARKER LIGHTS AND REFLECTORS**

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements. All marker lights shall be incorporated into the headlight circuit of the cab/chassis.

## **MARKER LIGHTS**

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements. The side and rear of the body will be provided with reflectors. All marker lights shall be incorporated into the headlight circuit of the cab/chassis

Two (2) amber reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30 feet long or longer.

Four (4) red reflectors shall be provided on the apparatus rear, one (1) each side and two (2) on the rear.

## **LED LICENSE PLATE LIGHT**

One (1) TecNiq model # L12-WC00-1 LED license plate light shall be provided above the mounting position of the license plate. The light shall be clear in color and shall have a chrome finish.

## **WORK LIGHT, PUMP AREA, 12V**

One (1) 12V adjustable 4.00" round LED work light shall be mounted at the rear of the skid unit to provide light during nighttime operations. The light(s) shall have a black housing with a black rear cover. The light(s) shall have six (6) ultra-bright white LEDs, and shall operate at 12 volts DC, draw 0.60 amps, and generate 700 lumens.

## **WORK LIGHT SWITCH**

The pump area work light shall be wired to the electric start on the pump.

## NFPA AUDIBLE AND LIGHTING WARNING PACKAGE

The following warning light package shall include all the minimum warning light and actuation requirements for the current revision of the NFPA 1901/ 1906. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" which includes disabling all white warning lights when the apparatus is in "Blocking Right of Way" mode.

### LIGHTBAR

One (1) WHELEN model JE2NFPA 56.00" LED lightbar shall be supplied and mounted. The lightbar shall have clear lenses and contain the following modules:

Four (4) RED LIN6 LED modules, two (2) on each corner.

Four (4) RED CON3 LED modules, across the front

Two (2) WHITE CON3 LED modules, on the front

The forward-facing white lights shall be automatically disabled for the "Blocking Right of Way" mode.

### LIGHT BAR ACTUATION

The light bar shall be controlled by a switch in the cab.

### LOWER FRONT WARNING LIGHTS

One (1) pair of Whelen model M4 Series LED warning lights shall be installed, one (1) each side one the front of the chassis cab.

The driver side warning light shall be a Whelen Model M4R red LED with red lens.

The officer side warning light shall be a Whelen Model M4R red LED with red lens.

Each light shall be mounted with a Whelen Model M4FC chrome flange.

### LOWER INTERSECTION WARNING LIGHTS

One (1) pair of Whelen model M4 LED warning lights shall be installed, one (1) each side of the chassis cab.

The driver side warning light shall be a Whelen Model M4R red LED with red lens.

The officer side warning light shall be a Whelen Model M4R red LED with red lens.

Each light shall be mounted with a Whelen Model M4FC chrome flange.

### LOWER MID-BODY WARNING LIGHTS

One (1) pair of Whelen model M7 Series LED warning lights shall be installed, one (1) each side of the apparatus, mid-body.

The driver side warning light shall be a Whelen Model M7R red Super-LED with red lens.

The officer side warning light shall be a Whelen Model M7R red Super-LED with red lens.

Each light shall be mounted with a Whelen Model M7FC chrome flange.



## **LOWER REAR WARNING LIGHTS**

One (1) pair of Whelen model M6 Series LED warning lights shall be installed, one (1) each side of the lower rear of the apparatus body.

The driver side warning light shall be a Whelen Model M6R red Super-LED with red lens.

The officer side warning light shall be a Whelen Model M6R red Super-LED with red lens.

The warning lights on the rear of the body shall be mounted in lower section of each taillight casting.

## **LOWER WARNING LIGHT SWITCH**

The lower warning lights shall be controlled through the master warning switch.

## **ELECTRIC SIREN AND CONTROL**

One (1) Whelen model #295SLSA1 electronic siren shall be mounted in the cab. This unit shall feature an electronic air horn, wail, yelp, hi-lo and shall have a hard-wired PA microphone.

## **ELECTRONIC SIREN SPEAKER**

One (1) Whelen model SA315P 100-watt speaker shall be provided. The speaker shall produce a minimum sound output of 120 dB at 10 feet to meet current NFPA 1901/1906 requirements.

The speaker shall be located on the right-hand side of the bumper.

## **BODY PAINT PROCESS**

All bright metal fittings, if unavailable in stainless steel shall be heavily chrome plated. Iron fittings shall be copper plated prior to chrome plating.

All seams shall be caulked both inside and along the exterior edges with a urethane automotive sealant to prevent moisture from entering between any body panel.

The body and all parts shall be thoroughly washed with a grease cutting solvent (PPG DX330) prior to any sanding. After the body has been sanded and the weld marks and minor imperfections are filled and sanded, the body shall be washed again with (PPG DX330) to remove any contaminants on the surface.

The first coating to be applied is a pre-treat self-etching primer (PPG DX1787) (.5 to 1.0 dry film build) for maximum adhesion to the body material. The next two to four coats (depending on need) shall be an acrylic urethane primer surfacer (PPG K36). The film build shall be 4-6 mils when dry. The primer surfacer coat, after appropriate dry time, shall be sanded with 320-600 grit sandpaper to ensure maximum gloss of the paint. The last step is the application of at least three coats of PPG Delfeet polyurethane two-component color (single stage). The film build being 2-3 mils dry. The single stage polyurethane, when mixed F3270 catalyst (PPG F3260) shall provide a UV barrier to prevent fading and chalking.

All products and technicians are certified by PPG every two (2) years.

## **CHASSIS PAINT**

The chassis shall be painted by the OEM Chassis Manufacturer.

## **PRIMING**

All surfaces to be painted shall be primed with three (3) parts PPG F3993 Primer mixed with one (1) PPG F3996 Primer Hardener, and a half (.5) part PPG Thinner F3320.

Two (2) applications of primer shall be applied. The first application shall be four (4) coats and the second application shall be three (3) coats.

A final application of sealer shall be applied using Primer Filler.

## **PAINT FINISH**

The body shall be painted with a PPG Delfleet Evolution Paint System.

As part of the curing process the painted body shall go through a baking process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product.

After bake and ample cool down time, the coated surface shall be sanded using 3M 1000, 1200, and or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M Super-duty compound to add extra shine to coated surface. No more than .5 mil shall be removed in this process.

All products and technicians shall be certified by PPG every two (2) years.

## **SIDE COMPARTMENT FINISH, ZOLATONE**

The apparatus side compartment interiors are to be coated with Zolatone, a polychromatic, modified nitrocellulose coating with a flat background color with accenting fleck colors. The compartments shall be cleaned with a grease remover, and then the surface sanded and prepared for painting. The Zolatone finish is washed and waxed like paint and is resistant to man solvents and wear.

## **PAINT COLOR**

The apparatus body paint shall be "cross referenced" from the chassis paint and shall be painted to match the main chassis color as close as possible.



## **REFLECTIVE STRIPING**

Reflective striping shall be applied to the perimeter of the truck. Size and design shall be determined by the department.

## **CHEVRON STRIPING**

At least 50% of the rear of the unit shall be covered with red and yellow alternating 6" stripe in an inverted Chevron pattern.

## **LETTERING**

Reflective lettering shall be applied to the cab doors at the direction of the County.

Photos or drawings of the lettering and striping layout shall be provided by the County prior to construction.