

FSA20-VEF14.02 Fire Rescue Vehicles & Other Equipment

SPECIFICATION GROUP 9: REAR MOUNTED AERIAL APPARATUS

FSA AWARDED VENDOR: TEN 8 FIRE EQUIPMENT INC. (EFFECTIVE 1/4/2021, COMPANY NAME CHANGED TO TEN-8 FIRE & SAFETY, LLC.)

FSA Spec Item #	MANUFACTURER	CHASSIS MAKE / MODEL	LADDER TYPE	ADJUSTED FSA CONTRACT AWARD PRICE (EFFECTIVE 8/1/2021)*	% Discount Off MSRP	BUILD SHEET
149	Pierce Manufacturing Inc.	Enforcer 75` Aluminum	75'	\$ 793,086	6%	Build Sheet
150	Pierce Manufacturing Inc.	Impel 75` Aluminum	75'	\$ 800,536	6%	Build Sheet
151	Pierce Manufacturing Inc.	Velocity 75' Aluminum	75'	\$ 827,260	6%	Build Sheet
152	Pierce Manufacturing Inc.	Arrow XT 75' Aluminum	75'	\$ 818,143	6%	Build Sheet
153	Pierce Manufacturing Inc.	Enforcer 75` Steel	75'	\$ 785,517	6%	Build Sheet
154	Pierce Manufacturing Inc.	Impel 75` Steel	75'	\$ 805,022	6%	Build Sheet
155	Pierce Manufacturing Inc.	Velocity 100' Aluminum	100'	\$ 1,073,738	6%	Build Sheet
156	Pierce Manufacturing Inc.	Arrow XT 100' Aluminum	100'	\$ 1,016,939	6%	Build Sheet
157	Pierce Manufacturing Inc.	Enforcer 105' Steel	105'	\$ 932,491	6%	Build Sheet
158	Pierce Manufacturing Inc.	Arrow XT 105' Steel	105'	\$ 956,941	6%	Build Sheet
159	Pierce Manufacturing Inc.	Velocity 105' Steel	105'	\$ 1,015,351	6%	Build Sheet
160	Pierce Manufacturing Inc.	Enforcer 107` Steel	107'	\$ 904,776	6%	Build Sheet
161	Pierce Manufacturing Inc.	Impel 107` Steel	107'	\$ 920,329	6%	Build Sheet
162	Pierce Manufacturing Inc.	Velocity 107` Steel	107'	\$ 942,746	6%	Build Sheet
163	Pierce Manufacturing Inc.	Arrow XT 107` Steel	107'	\$ 932,592	6%	Build Sheet

* Price Adjustments Authorized Pursuant To FSA Contract Terms & Conditions, Sections 3.04 & 3.06.

FLORIDA SHERIFFS ASSOCIATION, FLORIDA FIRE CHIEFS' ASSOCIATION,
& FLORIDA ASSOCIATION OF COUNTIES
FSA 20-VEF14.02 FIRE RESCUE VEHICLES & OTHER EQUIPMENT

SPECIFICATION #9 –REAR MOUNTED AERIAL APPARATUS

Bidders may and are encouraged to bid multiple lengths as long as specifications are met to provide more flexibility and choices to meet purchaser needs.

ALL ITEMS FACTORY INSTALLED UNLESS OTHERWISE INDICATED

INSTRUCTIONS: INSTRUCTIONS: All bids shall meet the manufacturer's base vehicle standard equipment and the minimum specifications of the base vehicle bid.

In all areas of this specification, bidders must comply with currently established NFPA 1901 (current edition), FMVSS (applicable areas), and NHTSA standards. When requested by the purchaser, vendors must submit detailed specifications for the item and options offered.

The purchaser will contract directly and individually with the vendor of their choice for any and all vehicles offered on this contract and any options required to meet their individual needs. Purchasers shall choose from options furnished to them by the vendor in accordance with the FSA Contract Terms and Conditions.

Vehicle delivery shall be accomplished by manufacturer or vendor delivery to a purchaser's designated location as specified in the FSA Contract Terms and Conditions. Purchasers may reserve the right to pick up vehicles from the manufacturer or the vendor.

Bidders are advised that the Bid Bond and Performance Bond documentation required under FSA Contract Terms and Conditions is required with the bid submission. A letter from a bonding company licensed to do business in Florida must be submitted with the bid stating that the manufacturer will provide a 100% Performance Bond between the bidder and the purchaser upon award of this bid and at the request of a purchaser.

Vendors must provide warranty information to purchasers that meet the terms and conditions of the contract and any additional warranties provided in this specification bid document.

The manufacturer or vendor for vehicles under this specification group:

- A. Shall carry not less than fifteen million dollars (\$15,000,000) in product liability insurance, listing the Florida Sheriffs Association as additional insured, and shall submit a copy of this insurance with the bid proposal.
- B. Shall employ full-time parts personnel with toll-free access number.
- C. Shall employ a full-time electrical troubleshooter with toll-free access number.
- D. Shall employ a full-time warranty representative with toll-free access number.

1. DOCUMENTATION

- a. When requested by end user, bidders to accurately state wheelbase, cab to axle, overall length, bumper swing turn radius, curb-to-curb turning radius, overall height, overall width, GVWR, angle of approach, angle of departure and SCAAN certification for drivetrain compatibility in submitted specifications
- b. Approval drawings provided prior to construction commencement
- c. Two (2) sets of operator and service manuals
- d. Delivery to be F.O.B. customer's location
- e. Three (3) days of training by employee of manufacturer
- f. Pump test certification by independent third party
- g. Water tank capacity certification by independent third party
- h. Aerial non-destructive, waterway flow test, performance and stability testing by independent third party
- i. 12 volt and, if applicable, 110 volt testing by independent third party
- j. Vehicle weight, as measured by certified scales

2. CHASSIS

- a. 110,000 psi steel frame rail with full length inner 110,000 psi C-channel liner
- b. 10 gauge polished stainless steel 16" to 24" extended front bumper with aluminum diamond plate gravel shield
- c. Tow hooks or eyes front and rear attached to the frame
- d. Minimum front and rear axle, suspension, tubeless radial tires, steel disc wheels to meet the designed apparatus GVWR including NFPA loose equipment allowance.
- e. Front and rear mud flaps
- f. NFPA 1901 top speed rating requirement
- g. S-cam air brakes or equivalent, as large as possible, with automatic slack adjusters
- h. Manufacturer's standard compressor
- i. Minimum 5000 cubic inch air reservoir capacity
- j. Air dryer, color coded air lines, turn drain valves on reservoirs
- k. ABS brakes
- l. Power steering with tilt/telescopic wheel
- m. Vehicle data recorder (VDR) in compliance with NFPA
- n. Electronic Stability Control shall be provided in compliance with NFPA 1901 Chapter 4.13.1.2 if the manufacturer cannot comply with Chapters 4.13.1.1 through 4.13.1.1.3.2.
- o. Tire pressure monitoring system with Chapter 4.13.4

3. POWERTRAIN

- a. Minimum 450 horsepower turbocharged diesel engine emergency vehicle service rated
- b. Engine exhaust at front of right rear wheels
- c. Secondary braking to meet NFPA
- d. Engine manufacturer's statement of engine installation approval with approved cooling system
- e. Drivelines to meet engine torque rating

- f. Silicone coolant hoses with constant torque clamps
- g. Automatic transmission emergency vehicle service rated
- h. 50 gallon minimum fuel tank
- i. OEM oil, fuel, transmission filters

4. CAB

- a. Medium length tilt aluminum cab meeting NFPA 1901 Chapter 14.3.2
- b. Seating for four, three in SCBA seats with SCBA brackets
- c. Air ride driver seat, all others fixed position
- d. All persons in 3-point seat belts per Chapter 14, seats equipped with seat belt/occupant detection/warning system per Chapter 14
- e. Electric over hydraulic cab tilt with manual back-up
- f. Single tone cab paint finish with 10 year paint warranty pro-rated
- g. Air conditioning and heating
- h. Remote controlled mirrors (from driver's position) with separate flat and convex sections
- i. DOT compliant headlights
- j. Forward facing turn and warning lights
- k. Cornering turn and warning lights
- l. Minimum four (4) dome lights with red and clear bulbs
- m. Minimum four (4) under cab step lights
- n. Cab and compartment door ajar light and buzzer
- o. One (1) engine compartment light
- p. Color coded and function coded wiring
- q. Alternator sized according to amp draw report
- r. Minimum four (4) 750 CCA batteries
- s. Load manager with automatic high idle function
- t. Dual air horns with dual in-cab controls

5. AERIAL APPARATUS – ALUMINUM OR STEEL

- a. Aerial shall meet or exceed all sections of NFPA 1901 Chapter 19
- b. Ladder material: aluminum or steel
- c. Rear-mounted configuration
- d. Minimum 2 section aerial per NFPA requirements
- e. Rated horizontal reach per NFPA requirements
- f. Rungs shall meet all aspects of NFPA 1901
- g. Rungs equipped with a slip resistant surface meeting NFPA
- h. Rungs spacing meeting NFPA
- i. Turntable with pedestal mounted controls meeting NFPA 1901
- j. Aerial rated load capacity not flowing water: 500 lbs. minimum in addition to equipment mounted at tip of ladder
- k. Aerial rated load capacity while flowing 1000 gpm: 500 lbs. minimum in addition to equipment mounted at tip of ladder
- l. Rated load capacities shall meet and /or exceed NFPA 1901
- m. The aerial shall be rated in multiple configurations per Chapter 19.3.4
- n. Extend/retract, rotate and hydraulic or electric over hydraulic controls meeting NFPA 1901 19.5 through 19.5.3.6.
- o. Hydraulic pressure gauge at turntable controls
- p. Illuminated Angle of Elevation Indicator meeting NFPA 1901 19.4.1
- q. Flowmeter on turntable control pedestal meeting NFPA 1901 19.6.8
- r. All aerial control devices shall meet NFPA 1901 19.17
- s. Fall protection provisions shall be provided.

- t. Bidders to state type of stabilizers and overall stabilizers spread
- u. Aerial shall meet structural safety factors in accordance with NFPA 1901 19.20
- v. Aerial shall meet NFPA 1901 stability safety factors Chapter 19.21
- w. Lighted turntable area
- x. The aerial manufacturer (the company that manufactures the entire aerial device) shall maintain a Quality Control Program in accordance with NFPA 1901 Chapter 19.22
- y. Special attention shall be paid to meeting all safety requirements per NFPA 1901 19.20
- z. Aerial shall be fully tested and certified by third party certified testing company per NFPA 1901 19.24 and 19.25
- aa. 2-way intercom system between ladder tip and turntable control pedestal.
- bb. Minimum 1000 gpm waterway system meeting NFPA 1901 with remote control nozzle (controls at fly section and at turntable control pedestal) with movable manual pinned waterway or remote control movable waterway.
- cc. Minimum 4" rear waterway inlet with pressure gauge and long handled chrome cap
- dd. Minimum 4" waterway discharge with 4" valve with handwheel or electric control on pump panel
- ee. Waterway relief valve and minimum 1.5" drain at rear of apparatus
- ff. Stabilizer controls and stabilizer to aerial controls mounted on rear of apparatus body
- gg. One (1) high intensity spotlights on ladder tip
- hh. Two high intensity flood lights on ladder base
- ii. Painted finish on steel or galvanized steel aerial-bidder shall provide copy of paint warranty on aerial
- jj. Instruction plates and signs must be installed per NFPA 1901 Chapter 19.23

6. FIRE PUMP & PLUMBING

- a. Minimum 1250 GPM pump as rated per NFPA 1901 (Pump shall be capable to achieve rated aerial flow without exceeding design performance.)
- b. Air or electric operated pump shift
- c. Discharge pressure relief valve or Electronic pressure governor
- d. Intake pressure relief valve
- e. Master drain valve
- f. Electric dry type or air primer
- g. Pump panel lights, 3 each side
- h. Pump compartment light
- i. OK to pump lights in cab and at pump panel
- j. Engine cooler
- k. Pump cooler
- l. Two (2) 6" steamers, one on each side panel
- m. 2.5" left side gated suction
- n. 1.5" tank fill
- o. Two (2) 2" crosslay hose beds over the pump compartment with 1.5" connections
- p. Two (2) 2-1/2" left side discharges
- q. Two (2) 2-1/2" right side discharges
- r. Stainless steel schedule 10 piping with 10 year warranty
- s. Panel gauge package: water tank level, tach, oil pressure, water temperature, voltmeter, light and alarm system
- t. Minimum 300 gallon polypropylene booster tank with lifetime warranty
- u. 3" tank to pump connection
- v. Fill tower per NFPA requirements

- w. 15 ft. of soft suction hose sized for capacity of fire pump

7. APPARATUS BODY

- a. Bidders to bid on each of their offered construction types:
 - Extruded aluminum
 - Formed aluminum
 - Formed galvanized steel
 - Formed stainless steel
- b. Bidders to state thicknesses, alloys and construction methods of all materials used in body construction
- c. High left and right side compartments or high left side compartments and low right side compartments with right side hose bed (one shelf per compartment)
- d. Bidders to accurately state the total cubic footage of compartment space, along with each compartment size
- e. Lights in compartments to meet NFPA 1901
- f. Hose bed lighting must be provided per NFPA 1901
- g. Back up alarm
- h. Rear ladder storage for minimum 85' NFPA ground ladders fully enclosed at rear of apparatus, ladders to be included
- i. Rear pike pole storage for minimum of six (6) pike poles fully enclosed at rear of apparatus
- j. Slide out pump operator platform
- k. Hose bed with hose restraints to be NFPA quint compliant
- l. Steps and handrails for climbing from ground to turntable – bidders to state exact design
- m. Lights at each step
- n. Stop/turn/back up lights
- o. DOT clearance and marker lights
- p. License plate light
- q. Rear deck lights
- r. Rub rail along each side of body
- s. Running boards at each pump panel
- t. Brushed stainless steel or black non-glare aluminum pump panels
- u. No less than four Self-Contained Breathing Apparatus (SCBA) Bottle Storage

8. EMERGENCY WARNING

- a. NFPA Zone A lower and upper level lighting
- b. NFPA Zone B / D lower level lighting
- c. NFPA Zone C upper and lower level lighting
- d. Electronic 200 watt siren/PA with minimum 100 watt speaker recessed in bumper
- e. All emergency lights, stop/turn/back-up lights, DOT clearance, pump panel, compartment, step, license plate, perimeter scene, and interior dome lights to be LED

9. PAINT FINISH/REFLECTIVE STRIPING

- a. Cab and body to be painted single tone (excludes stainless steel not painted)
- b. Wheels painted to match the cab and body

- c. NFPA 1901 required reflective striping.

10. WARRANTY

- a. 1 year bumper to bumper mechanical, excluding normal wear and tear items
- b. 10 year cab and body structural
- c. 10 year paint pro-rated
- d. 5 year corrosion perforation on cab and body
- e. 20 year aerial structural
- f. Lifetime frame warranty
- g. 2 year axle
- h. 5 year engine
- i. 5 year transmission
- j. 5 year fire pump
- k. Lifetime booster tank