

**Central County Fire and Rescue  
Administration Offices:  
1220 Cave Springs Blvd.  
St. Peters, MO 63376  
(636) 970-9700**

**Invitation to Bid:**

Central County Fire and Rescue is soliciting bids for one (1) 32' Watercraft with trailer fulfilling the requirements of the 2024 PSGP Grant #EMW-2024-PU-05353

**General Requirements:**

1. The bidder shall provide detailed manufacturer specifications for the bid.
2. The bidder shall submit detailed warranty terms along with the bid.
3. Watercraft must be new and unused. Trailer must be new, unused, and specific to the watercraft. Non-specific or adapted to fit trailers will not be accepted.
4. Watercraft shall meet or exceed the 2018 NFPA 1925 Standard on Marine Firefighting Vessels.
5. Bidders shall submit the following documents with their proposal:
  - a. Proof of active registration in the System for Awards Management (SAM)
  - b. Completed W-9 Form
  - c. Bid Bond – Equal to the amount of down payment required for the project.
  - d. Detailed timeline for build, acceptance, and delivery of the Vessel.
  - e. Performance Bond – A performance bond will be required from the selected vendor prior to signing of the formal contract.
6. Pricing shall be valid for thirty (30) days minimum after bid opening.
7. Final bid price shall include all costs associated with the vehicle including delivery to:

Central County Fire and Rescue Headquarters  
1220 Cave Springs Blvd.  
St. Peters, MO 63376

8. These specifications MUST be returned with the bid proposal. Any and all exceptions to the specifications outlined herein must be noted on this bid specification and thoroughly explained in the bid proposal. The statement “we are equal to your specifications,” will not be permitted. It will be the responsibility of the District to determine if a substitution to the specification is considered “equal to.” The bidder must provide with any exceptions, detailed specifications so that the District can make the necessary

comparisons to make a proper decision. Failure to do so may result in rejection of your bid for noncompliance.

**Exceptions must be noted on this specification sheet in the provided area on PAGE 10.**

9. Bids shall be sealed and clearly marked “**32’ Watercraft.**” Bids will be accepted until 2:00 PM on **Wednesday, October 16, 2024.** The bid opening will be at **6:00 PM** on **October 16, 2024,** at Central County Fire and Rescue Headquarters, 1220 Cave Springs Blvd., St. Peters MO 63376. The District reserves the right to reject any or all bids, to waive any and all technicalities and to award the contract to the best bidder.

## **SPECIFICATIONS**

### **1. Overall**

#### *Vessel Dimensions*

- Length Overall – 32 feet
- Beam Overall – 10 feet (inclusive of fendering)

### **2. Operational Area**

The operational area for this vessel will be primarily the waters of the Mississippi River in and around St. Peters, MO. While inland waters, it is understood that the vessel will be required to operate in a variety of conditions subject to location and weather impacts. The vessel must be designed to withstand potential significant sea states like working offshore.

### **3. Hull Design**

#### *Shell and Supporting Structure*

- The vessel shall be constructed of all aluminum plate and extrusion. Aluminum plate shall be 5086 marine grade aluminum without exception. Scantlings shall be determined by utilizing ABS Rules for High-Speed Naval Craft. All hull bottom plate shall be a minimum of 0.25" thickness. Side shell, defined as the hull sides from the chine to the gunwale, shall be a minimum of 0.1875" thickness. Extruded 6000 series keels are not acceptable. Other grades of aluminum plate (i.e. 5083 and 5052) are not acceptable.

#### *Strakes*

- Hull lifting strakes and splash rails shall be incorporated into the hull to optimize vessel performance in high-speed operations and maneuvers.

#### *Deck Drains*

- The vessel shall incorporate deck drains sized in accordance with ABYC standards for quick draining decks.

#### *Hatches*

- Watertight hatches shall be provided for access to below deck spaces for maintenance and inspection.

#### *Cleats*

- A total of eight (8) cast aluminum cleats shall be provided welded to the gunwales (four each on port and starboard)

#### *Bow Eye*

- The vessel shall include a double bow eye incorporated as an integral part of the keel and not a welded attachment. Stainless steel inserts shall be welded into the bow eye.

#### *Trim Control*

- Zip Wake Dynamic Trim System sized for the overall vessel size and weight shall be installed.

#### *Dive Ladder*

- A custom fabricated open run dive ladder shall be provided with multiple mounting locations to be confirmed during design review and approved by the customer prior to manufacture.

#### *Bow Door*

- A forward bow door shall be provided. The dive door shall be actuated by hydraulic or DC electric actuators.

#### *Dive Doors*

- Hinged dive doors shall be provided for access to the forward cockpit on port and starboard.

#### *Engine Guard*

- A heavy-duty engine guard with integrated stokes litter shortage rack shall be provided.

#### *Tow Post*

- A heavy-duty tow post aft shall be provided. The tow post shall be designed to withstand the maximum bollard pull of the engines with a safety factor not less than 1.5.

#### *Handrails*

- Handrails shall be provided to facilitate safe movement around the vessel. Final handrail placement shall be determined in design. For planning purposes, it is anticipated that handrails will be located as follows:
  - Along the outside perimeter of the pilot house roof
  - Along the aft deck gunwales
  - Other strategic locations as required to enhance safety and crew effectiveness

### **4. Bilge Pumps & Alarm Systems**

#### *Bilge Pump System*

A Rule 2000 gph bilge pump system shall be installed in each watertight compartment (except the fuel tank compartment) with Ultra Safety Systems float switch. All bilge pump electrical connections shall be made in NEMA boxes using ring terminal connectors and terminal strips. No spliced cables are to be used in the bilge area. Bilge hose is to be routed to a welded-in thru hull discharge fitting designed in accordance with ABYC guidelines.

### **5. Fuel System**

#### *Fuel Tank*

A fuel tank shall be installed compliant with current USCG and EPA emissions rules. The proposed fuel tank is greater than 160 gallons. Tank to be constructed out of .25" Aluminum plate. The tank bottom and sides shall be formed out of a single plate to minimize corner seams. Tank must be independent of the hull structure (not integral) and support on pads to prevent chafing and corrosion.

Fuel Fill and vents shall be located to provide for ease of filling and to prevent the accidental discharge of fuel into the environment.

The tank shall include a Wema fuel sending unit and be capable of integration into the vessels Propulsion engine's multifunction display.

The fuel tank shall be designed for accessibility to fittings and sending units for future maintenance and repair.

Fuel Pick-Ups shall be stainless steel and be sized in accordance with the OEM guidelines.

Fuel System Hoses – Fuel fill and vent hoses shall be USCG Type A2 and meet the requirements of SAE J5127. Fuel distribution hoses shall be USCG Type A1-15 and meet the requirements of SAE J5127.

## **6. Fendering**

### *D-Rubber*

- Fendering shall be 3" Duramax D-Rubber mounted along the gunwale with vertical D-rubber strakes provided on both sides. The D-Rubber shall be mechanically affixed to the hull without the use of penetrations into the side shell of the vessel.
- A lower hull strake shall be provided just above the waterline and will include UHMW fendering and an integrated handrail. The lower hull strake shall be fully welded; stitch welding will not be allowed.

## **7. Deckhouse / Cuddy Arrangements**

### *Cabin*

- The topside arrangement shall be a full width cabin with forward and aft hinged doors.

### *Windows and Doors*

- Windows: Forward raked windshields shall be provided. Sliding side windows shall be installed port and starboard.
- Tint: Aft windows shall be tinted with a ceramic tint no darker than 50% VLT. Forward windows shall be tinted with a ceramic tint no darker than 70% VLT.

### *Wiper / Washer*

- The vessel shall include a windshield wiper and washer system.

### *Seating*

- Two suspension seats shall be provided at the leaning post. The seats shall be bulkhead mounted with the ability to flip down to enable standing operation. The seats shall incorporate height adjust.
- Two bench seats shall be provided aft of the shock mitigating seats on port and starboard.

### *Storage*

- A large console storage box shall be provided forward of the house.

### *Flooring*

- All exterior walking surfaces shall incorporate 3M safety walk non-skid.

## **8. Propulsion - Outboard**

Propulsion Engine – Propulsion engines shall be twin 300HP Yamaha outboards.

Propulsion Controls – Propulsion controls shall be digital throttle and shift.

Propulsion Steering – Steering shall be the Yamaha Helm Master EX controls with joystick.

Engine Break-in – The vessel shall be operated in accordance with the OEM requirements for break-in during the break in period. A minimum of 10 hours shall be put on the vessel.

## **9. AC Electrical**

### *30A Shore Power System*

- Vessel to be provided with a 30A 125V Shore Power System to include a shore power inlet, galvanic isolator and ELCI breaker.
- Vessel to be provided with a 30A 125V Shore Power cord 50' long.

### *AC Electrical Distribution System*

The AC electrical distribution system shall be a single point grounded system in accordance with ABYC requirements. The system shall include a Blue Sea Systems distribution panel with multimeter, ship shore selector switch, main breaker, and enough breaker slots to account for all vessel AC loads plus a minimum of 2 spares.

### *Generator*

- The vessel shall be equipped with a 5.0 KW Westerbeke marine gasoline generator.

### *Heater*

- A 120V Dial-a-Watt heater shall be provided in the cabin.

### *Battery Charger*

- Waterproof Battery Charger – Waterproof ProTournament Elite Series battery chargers that supply 24 Amps of charge current, installed with circuit protection in accordance with ABYC guidelines. Suitable for Flooded, AGM or Performance AGM Batteries.

### *Air Conditioner*

- A 15000 BTU rooftop marine air conditioner shall be provided.

## **10. DC Electrical**

### *Batteries*

- Sealed AGM batteries to be provided for each engine and sized in accordance with OEM installation requirements. In addition, there shall be one Sealed AGM House battery at a minimum to provide for all house loads. An Electrical Load Analysis showing proper battery qty and size to be provided with the bid.
- Batteries shall be stored in plastic battery boxes, secured in a custom cut aluminum frame and located in an appropriately ventilated compartment.
- All batteries shall have a means for disconnect and emergency paralleling via a battery switch.
- Starting Batteries shall be charged by their respective engine's alternators, House batteries shall be charged from an isolated charging lead from each propulsion engine alternator.

### *DC Distribution*

The DC Distribution system shall be configured in accordance with ABYC requirements. All conductors shall be the size and type appropriate for their respective environments and loads. DC Circuit protection shall be provided in accordance with ABYC requirements and include at a minimum include enough circuit breakers in the panel to account for all vessel AC loads plus a minimum of 4 spares.

### *Lighting*

- Navigation lights – LED Navigation lights shall be provided in accordance with applicable federal regulations. (Hella or equivalent)
- Flood lights – [4] LED Flood lights shall be installed on the cabin roof. Lights to have a minimum output of 1000 lumens each. Switched separately, Port, Starboard, Forward, and Aft. (Lumitec CapreraLT)
- Search light – Two (2) Go Light GT LED 410,000 cd or equivalent, shall be installed to include a hardwired dash remote and Wireless Control. Lights shall be permanently mounted with one on each side of the forward cabin.
- Cabin Lighting – [2] LED Red / White Dome lights shall be installed and arranged for maximum visibility. Lights to be dimmable and controllable at each light. Exact locations to be determined during design review.

- Courtesy Lighting – [4] low level courtesy lights to illuminate the deck during nighttime operations shall be provided; color to be red.
- Underwater Lighting – [2] Lumitec Sea Blaze (or equal) underwater lights.
- Scene Lighting – [2] High Intensity Durab rite lights shall be provided on the roof as scene lights.

#### *Crew comfort / convenience*

- 12V / USB Receptacle – [2] Blue Sea #4365 Combination 12V / USB Receptacles shall be located near the console to allow for charging of cell phones, and tablet devices.
- Cabin Fans – [2] heavy duty steel cabin fans.

#### *Alarm, safety and warning systems*

- Emergency Lighting – Emergency lighting shall be installed to provide 360-degree coverage. Eight [8] flush mount light heads shall be provided along the edges of the cabin roof; two port, two starboard, two aft and two forward.
- Siren and Loud Hailer – A siren with amplifier and loudhailer shall be provided. The siren shall be activated utilizing custom switching to be approved during design review.

### **11. Navigation Electronics and Communication**

#### *Non-electrical / electronic navigation aids*

- Compass (lighted, dimmable)

#### *Electrical navigation aids*

The below list indicates the items that shall be included in the navigation and communications package furnished by the department and installed by the builder.

- Multi-function display / chart plotter – Two 12” Garmin GPSMAP8612XSV Chart plotters with GPS and Transducer.
- Radar – One Garmin GMR18 xHD Radar dome.
- Additional transducer – The builder shall provide and install an additional thru-hull CHIRP transducer.

#### *Radio systems*

- GFE radios (e.g. Motorola) – Two (2) A customer furnished Motorola APX 8500 emergency band radio shall be installed at the factory.
- VHF Radio – The builder shall provide and install a Standard GX6000 VHF radio with loudhailer/intercom

#### *FLIR/Visual*

- The builder shall provide and install a FLIR M332 Thermal Camera System with Joystick Control.
- The builder shall provide and install a GC200 marine IP camera to function as a rearview camera.

### **12. Paint, Non-Skid and Graphics**

All paint and graphics designs shall be provided for customer review and approval prior to application to vessel.

#### *Non-Skid*

- Light gray Raptor liner coating with aggregate shall be provided on all walking surfaces.
- The vendor shall provide a proposed non-skid pattern to the government for approval prior to ordering and installation.

#### *Topside Finish*

- Mill finish aluminum (no paint)

### **13. Outfit:**

#### *Anchoring and Mooring*

- Anchor with shackles, rode and chain appropriately sized for the vessel.
- Four (4) docking lines
- 8' telescoping boat hook

#### *Safety Equipment*

- All required safety equipment as defined in the Code of Federal Regulations for a vessel of this size shall be provided.
- A carbon monoxide detector shall be included in the cabin.
- One 850lb capacity davit with additional davit base shall be installed. Final installation locations to be determine during the design review.

### **14. Fire Fighting Systems**

#### *Fire pump (Direct Mount)*

- Direct Mount – 1000GPM @150PSI – The vessel shall have
  - A direct engine mounted pump capable of producing 1000 GPM at 150PSI shall be provided. The pump shall be mounted below deck and plumbed directly into the fire system piping supplying all monitors and discharges. The vendor must specify the make and model of the pump provided along with the make, model and horsepower of the pump drive engine.
  - Pump Compartment Ventilation - Proper natural and / or powered ventilation to meet the OEM installation guidelines and ABYC requirements.
  - Pump Engine Cooling System – Pump engine to be heat exchanger cooled thru a dedicated stainless steel sea strainer, thru-hull pick-up with valve sized to meet the OEM installation guidelines.
  - Pump Engine Exhaust System – Pump engine to be provided with exhaust system including water-lift muffler sized and installed in accordance with the OEM installation guidelines.
  - Pump Engine Compartment Fire Suppression – The pump engine compartment shall be provided with a non-halon fire alarm and suppression system. The system size shall be adequate for the pump engine compartment. The system shall provide for both automatic rate of raise actuation, and manual actuation from the operator's station.
- Pump fuel, starting and controls
  - The pump shall be provided with a Pump Boss PBA 200 control panel that has the ability to operate in pressure or RPM mode.
  - The pump system shall incorporate a remote start and stop panel located near the operator's station.
  - The fuel system for the pump shall be tied directly into the main fuel tank for the vessel if both the pump and propulsion systems have the same fuel type. No separate tank shall be provided unless required to accommodate a different type of fuel (e.g. diesel vs gasoline). Fuel to be supplied from the main tank to the pump engine that includes a shut off valve located at the tank and a Racor or equivalent spin on fuel filter / water separator sized to meet the OEM installation guidelines
- Suction arrangement – The suction arrangement for the pump shall include a dedicated sea chest with screened inlet, valve at the sea chest outlet and a valved vent to atmosphere.



### *Monitors and outlets*

- Monitor type (electric remote)
  - An electric remote monitor on the roof shall be provided with
    - Quad stacked tips
    - Stream Shaper
  - A TFT water thief with two 2.5" gated hydrant valves shall be provided for connection to the 5" Storz discharge.
- Discharge – The vessel shall be equipped with a 5" Storz discharge to support supply operations. The final location of the discharge will be subject to the Department's review and approval.

### **15. Special Mission Capabilities:**

#### *CBRN Protect*

- An American Safe Room (or equal) cabin filtration system shall be installed.

#### *CBRN Detect*

- A Laurus MiniRAD-V G2 gamma radiation detector shall be installed.

### **16. Trailer**

The vendor shall be provided with a commercial duty trailer designed for the anticipated boat over the road weight including spare tire, and fire department supplied loose equipment. Electric trailer braking system shall be designed for a trailer of the designed capacity and application.

### **17. Warranty**

The vendor shall warranty the vessel as specified below:

- For a period of one (1) year from the date of acceptance, the covered boat will be free from defects caused by faulty workmanship, installation or materials; and
- For a period of ten (10) years from the date of acceptance to the hull, deck and consoles of the covered boat will be free from structural defects caused by faulty workmanship or materials. This includes all aluminum fabrication, welding and fuel tank. "Date of Acceptance" shall start upon completion of a 1-hour post-delivery acceptance trial to ensure no damage during delivery/shipping.
- OEM provided equipment will be covered by existing manufacturer warranty.
- Any supplied items installed by the vessel builder shall be warranted for a period of one (1) year from faulty workmanship or installation.

### **18. Inspections, Sea Trials and Delivery**

Inspection Visits – The department plans for three inspection visits: design review, end of metal fabrication and sea trials for acceptance. Each visit will include up to four personnel from the department. Any manufacturer that has a facility further than 200 miles from Central County, MO shall provide for funding of travel for each trip in accordance with prevailing GSA rates.

Sea Trials – The manufacturer shall complete all builders' trials, to include the appropriate engine break-in period, prior to coordination with the department for final acceptance trials. The manufacturer shall provide a licensed Captain to conduct acceptance trials who is qualified to provide familiarization training of the vessel during the conduct of those trials. The manufacturer shall plan for the conduct of sea trials on a Saturday to facilitate the availability of department personnel for trials.

Upon completion of sea trials and acceptance at the factory, the vessel shall be transported by the manufacturer to a location designated by the department in St. Peters, MO.

**Exceptions Statements** – Please describe all exceptions to the bid specifications below. Identify the exception by item number and heading.

**PRICING**

Based on the information and specifications given, bidders are to indicate pricing:

- Price for Watercraft package as specified: \$\_\_\_\_\_

List any other additional costs:

Name of Dealer: \_\_\_\_\_

Signed by: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_ City & State: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_