SUBJECT: MARINE FIREFIGHTING AND RESCUE VESSEL

BID #: XF-0519-17 **OPEN DATE:** 7/5/2017

GENERAL GOVERNMENT AWARDS COMMITTEE

KIND AND BASIS OF CONTRACT:
SUPPLY CONTRACT – ONE TIME PURCHASE

AGENCY: FIRE/RESCUE

BASIS OF AWARD: TOTAL LUMP SUM BASE BID TO THE LOWEST RESPONSIVE, RESPONSIBLE BIDDER

NUMBER OF BIDS INVITED: 10 **NUMBER RECEIVED:** 2 **NO BID:** 0

SUMMARY OF BIDS AND RECOMMENDED ACTIONS:
Recommend approval of award to the lowest responsive, responsible bidder Metalcraft Marine U.S., Inc. in the amount of $359,217.00. Total estimated expenditure not to exceed $359,217.00.

Funding for this award to be encumbered by account FREP1F9-FRE043-17-06401 to be executed by purchase order.

Attachments: Recommendation Memo; Bid Tabulation Sheet; Terms and Conditions; Specifications

Analyst: _____
STEVEN BURAKOWSKI

RESPECTFULLY SUBMITTED: _____
GREGORY PEASE, CHIEF
PROCUREMENT DIVISION

CONCURRENCE BY: **Kurtis R. Wilson, Director/Fire Chief**

(ALL AWARD ACTIONS SUBJECT TO LAWFULLY APPROPRIATED FUNDS)
ACTION OF GGAC COMMITTEE ON RECOMMENDATIONS ABOVE

MEMBERS APPROVING _____ MEMBERS DISAPPROVING _____ DATE: _____

_____ _____ OTHER: _____

_____ _____

_____ _____

ACTION OF AWARDING AUTHORITY DATE _____

APPROVED _____ DISAPPROVED _____

OTHER _____

SIGNATURE OF AUTHENTICATION _____

FIRE AND RESCUE DEPARTMENT

July 21, 2017

TO: **Gregory Pease, Division Chief of Procurement**

FROM: **Kurtis R. Wilson, Director/Fire Chief**

RE: **BID XF-0519-17 Marine Firefighting and Rescue Vessel**

After review of the bid packages provided from the two (2) vendors bidding on the Marine Firefighting and Rescue Vessel it is our recommendation the bid be awarded to the lowest responsive bidder, MetalCraft Marine US, Inc. The award amount is $359,217.

Funding Account: FREP1F9- FRE043-17-06401

If you have any questions please contact Cindy Davis, 630-0205. Thanks

KRW/cd

File

BID TABULATION SHEET

TITLE:	MARINE FIREFIGHTING AND RESCUE VESSEL
BID NO.:	XF-0519-17
OPEN DATE:	July 5, 2017 @ 2:00 P.M.
BUYER:	Steven Burakowski, Analyst
No. Invited: (10) No. Received (2) No Bids: ()	
Recorded By:	Gail Sampson

ITEM	DESCRIPTION	QUANTITY	METALCRAFT MARINE U.S., INC.		SILVER SHIPS, INC.													
			PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE	PRICE EACH	EXTENDED PRICE
1	MARINE FIREFIGHTING AND RESCUE VESSEL	1	$359,217.00	$359,217.00	$399,900.00	$399,900.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TOTAL			$359,217.00		$399,900.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	
TERMS			1% 10, NET 30 DAYS		30 DAYS													
DELIVERY			120 DAYS		270 DAYS													
CONFLICT OF INTEREST			YES		YES													
ADDENDUM'S (1)			YES		YES													
DRAWINGS/SAMPLE/DESCRIPTIVE LITERATURE PAGE 20			YES		YES													
DEBARMENT FORM			YES		YES													
LOBBYING FORM			YES		YES													
NOTES																		

TERMS AND CONDITIONS

Marine Firefighting and Rescue Vessel

1. SCOPE
The City of Jacksonville's Fire and Rescue Department is currently accepting bids to obtain a source of supply for the items/services as outlined in the bid documents provided. The purpose of this bid invitation is to obtain information about your firm and its ability to provide these items/services and to obtain pricing commitments for **Marine Firefighting and Rescue Vessel** as listed in the bid documents.

2. AWARD
Award will be **ALL or NONE,** whichever is in the best interest of the City of Jacksonville, to the lowest responsive, responsible bidder. Bidders must bid on all items to be considered for all or none award. The City reserves the right to reject any or all bids. ALL awards are subject to the availability of funds.

3. TERM OF AGREEMENT
This is a one-time purchase.

4. PRE-BID CONFERENCE
Not Applicable

5. COMPLIANCE WITH SPECIFICATIONS
The bidder, by affixing their signature to the bid form submitted, agrees to provide the items/services in accordance with the bid documents provided. Bid only a single offering for each bid item. Multiple offerings, alternates (unless stated) and or stipulations may be cause for bid rejection. Bid only on forms provided herein unless otherwise stated. Bid submissions shall be in ink or typewritten. All corrections must be initialed.

6. STATE CONTRACTS
The City reserves the right to utilize contracts established by the State of Florida and or other governmental agencies for service(s) covered under this bid. The city reserves the right to cancel this contract in whole or in part for such service(s).

7. QUANTITIES
Quantities indicated reflect the estimated quantities to be purchased throughout the contract period and are subject to fluctuation in accordance with actual requirements. The City reserves the right to add or delete items, or increase the volume of services required, or not to make any purchase against this bid if it so deems necessary at any time during the contract period.

8. PRICES
All unit prices shall include freight, delivery, and handling charges to the delivery location as outlined in the bid documents.

9. ESCALATION / DE-ESCALATION

All pricing submitted shall remain firm for the initial term period. Upon renewal (if applicable), a supplier may submit in writing a request for price escalation/de-escalation for the percentage of change as listed in the Consumer Pricing Index (CPI) and/or documentation notifying of an industry wide increase. The City reserves the right to decline any price increase request.

10. DELIVERY

Jacksonville Fire and Rescue Department, 355 Ellis Road, Jacksonville, Florida 32254 Attn: Tactical Support. A packing list shall accompany all shipments, which shall indicate, at a minimum , the following; purchase order number, item number and description, date of shipment, quantity ordered, and shipped, unit price, and unit of measure.

11. PICK UP AND RETURNS

The City reserves the right to return an order in whole or in part if the merchandise is not in compliance with the bid specifications. The City or its agencies will determine compliance with bid specifications. Pick-up and returns will be made within 48 hours of notification at no charge to the City or its agencies.

12. SUPPLIER ACCESSIBILITY

The City or its representative must be able to contact, during normal business hours, by telephone or email any supplier providing goods or services to the City or its agencies. Any supplier accessibility requirements outlined in the specifications supersede this section.

13. REPORTING

The City may request, during the term of this bid, reports including but not limited to; usage, pricing, and delivery. Suppliers will be required to provide reports requested in hard copy and electronic format as required.

14. INVOICING

Invoices will be issued once supplies/services are delivered and/or rendered to the City of Jacksonville or its agencies. At a minimum, invoices must include; purchase order number or contract number, item number and description, date of shipment, quantity ordered and shipped, unit prices, unit of measure, and extended totals. Payment terms are Net 30 days. All original invoices shall be submitted to: City of Jacksonville, General Accounting Division, 117 West Duval Street, Suite 375, Jacksonville, Florida 32202. Payments will be made as outlined in the bid specifications.

15. INSURANCE / INDEMNIFICATION

Each supplier shall maintain, for the entire term of this bid, current insurance coverage as stated in the bid documents. All insurance certificates shall list the City of Jacksonville as an additional insured.

Jacksonville Fire and Rescue Department
Jacksonville, FL

SPECIFICATIONS AND REQUIREMENTS
PURCHASE OF MARINE FIRE FIGHTING AND RESCUE VESSEL

I. SCOPE OF THE CONTRACT

The work performed under this contract shall consist of the complete design, construction, outfitting, testing, and delivery of one 32' 10" molded (36' 8" LOA) length aluminum Landing Craft vessel with CBRNE positive pressure cabin. Delivery is to be made to the Jacksonville Fire and Rescue Department, Florida. Construction of the vessel shall be in accordance with this specification and to the highest standards of marine construction. The vessel shall conform to all regulatory standards in effect at the time of construction. All items and equipment must be new current year model. No used or refurbished equipment will be allowed.

1. The bidder shall provide all labor, engineering, equipment, materials, supplies, tools, transportation, storage, design, administration, and quality control for the construction of the vessel and successful completion of the project.

2. A qualified representative shall familiarize the purchaser in the operation, care, and maintenance of the vessel and bidder supplied equipment.

3. Contract shall include the delivery to the designated marina and include all paperwork required for registration.

4. Bidder must have a system in place to evaluate and accommodate appropriate and timely design suggestions or installations of purchaser supplied equipment. Such installation may be at additional cost, additional cost shall be agreed to by the parties. Builder will provide design change/addition criteria to purchaser.

5. Progress payments will be available after certain criteria is met: 20% after preconstruction conference at such time that metal is on site and construction has commenced; 20% at completion of metalwork construction; 20% at receipt of engines and rigging, and install has commenced; final payment of 40% at delivery and receipt of Manufacturers Statement of Origin and all documentation including pump test.

6. Delivery of completed vessel must be no later than 270 calendar days from issuance of purchase order to vendor.

II. GENERAL DESCRIPTION

Bidder will provide a CBRNE positive pressure cabin marine aluminum, open-ocean and inshore fireboat with rescue capabilities. 32'-33' molded length, shallow draft with a deep "V" bottom of 18 degrees or more. The boat shall be powered with two new outboard motors, 350 HP four-stroke gas engines of current year. The motors shall be inline 6 cylinders, supercharged and weighing no more than 725lbs each. Rebuilt motors are not acceptable. The vessel must be of proven design with a minimum of 5 years in service. The design must meet applicable NFPA 1925 requirements. The vessel will be a Type IV vessel and provide positive flotation if holed. Bidder to provide details and references of five similar vessels in service.

A. WATERWAY ACTIVITY

1. The fireboat will be harbored in Jacksonville, FL. It will respond in the waterways of the St. Johns River and its tributaries and out to the Ocean. It will be expected to be able to perform in shallow draft conditions. The fireboat will also be required to operate in tropical storm conditions with sustained winds up to 40 knots. The fireboat is expected to operate in driving rain and dense fog, and during all times of the day and night.

B. DIMENSIONS AND PRINCIPAL CHARACTERISTICS

Length Overall	36' to 37'
Beam Overall	10'- 11'
Air draft	11'- 12'
Weight (Light)	16,000 – 20,000 pounds
Fuel Capacity	200 gallons
Top Speed	40 knots

C. WORKMANSHIP AND STANDARDS

1. All work is done to high quality marine construction standards. All welding will be in accordance with welding procedures approved by the American Bureau of Shipping, Rules for Building, and Classing Aluminum Vessels. The hull construction shall be welded, all welds continuous inside and outside all seams. No rivets. All weld spatter, soot, and construction scars will be removed or faired. All sharp edges and corners are dressed to prevent hazards to personnel and equipment. The vessel will be constructed of 5083 series marine grade aluminum plate and 6000 series aluminum extrusions. No 6000 series aluminum shall be used below deck as stiffeners against the hull skin to prevent corrosion.

2. All fastenings to/through the hull shall be aluminum or 316 series stainless steel. If stainless steel, they shall be isolated from aluminum. The utmost care must be taken to ensure that any chance of corrosion is eliminated. Each manufacturer is responsible to explain how they isolate stainless steel from aluminum.

III. CONSTRUCTION REQUIREMENTS

A. GENERAL

1. The bidder shall provide engineering services, for such time as may be necessary for the technical supervision of the assembly, testing and certification of the vessel. All cost for inspection, testing, plan review, and approval shall be at the bidder's expense. Bidder shall be responsible for all travel, food and lodging for up to six (6) City of Jacksonville personnel to inspect and approve final product. If final approval is not immediately given, bidder will continue to cover all travel, food and lodging expenses until final approval is granted. The vessel shall be constructed in accordance with and comply with all applicable United States Coast Guard Rules and Regulations, Code of Federal Regulations 46, American Bureau and Yachting Council and American Bureau of Shipping.

2. All equipment shall be arranged so that it cannot be damaged by bilge water or within 12" of the bilge; connections shall be contained in NEMA boxes as required by applicable standards.

3. All parts of the vessel shall be constructed of materials appropriate for the environment in which the vessel will operate. Vessel will operate in a brackish/saltwater water environment.

4. The vessel shall be designed so that the various systems and parts are readily accessible for inspection, adjustment, maintenance, lubrication and repair. Placement of equipment whenever possible shall allow for its removal from the vessel without having to disturb permanently installed structural members, or equipment shall be situated to allow for in-place overhaul and repair.

5. Access and lightening holes shall be arranged clear of concentrated loads or areas of high stress.

6. Vessel shall have a field of vision from the helm suitable for safe navigation in all operating conditions and meet ABYC requirements.

8. Masthead, port, starboard and stern lights shall be provided and shall be controlled by a switch panel.

9. Vessel shall be equipped with a wheelhouse and large foredeck. Cabin shall be enclosed and engineered for a three - person crew plus EMS providers/patients. All windows, construction openings, piping and doors to cabin shall be weather tight.

10. Vessel design shall maximize storage in all areas, including inside the gunnels, and in the cabin.

B. DRAFT REQUIREMENTS AND HULL CONFIGURATION

1. The fireboat draft will not exceed 28 inches in depth.

2. The hull design will be a deep "V' bottom with 18 degree deadrise aft and meets ISO 12217 stability requirements. Vessel stability must be met without using added stability such as a foam collar. A "D" shaped rub rail shall be on the outside of the gunnel at deck level. The vessel shall have full length tangent chines to give a soft ride in rough water. Hull design shall be such as to reduce roll-out in high speed turns to the maximum extent practical.

3. The vessel must be extremely stable so that heavy loading on one side will not produce a large list.

4. While underway, the hull must be able to move spray and waves outboard giving a "dry' ride.

5. During initial takeoff acceleration, the ride should be flat and not upward, with a trim angle not to exceed 6 degrees. This should reduce wetted surfaces and give high top speeds and efficient cruising capabilities without putting excessive loads on engines.

6. Appropriate push knees with D rubber bumpers will be incorporated into the bow design and not adversely impact visibility or appreciably affect performance.

C. PILOTHOUSE

1. The pilothouse will be fully enclosed and fitted with fixed window aft and 4 sliding windows on the cabin sides, fixed 2 windows forward and doors leading out to the rear deck and forward deck that can be closed and locked, protecting the crew from outside influences. Five fixed spotter windows, one each port, starboard and 3 front on cabin roof. All windows shall be constructed of safety glass. The pilothouse will be outfitted with a control console forward and to the starboard side. All vessel controls, gauges, breakers, electronics, etc. are installed in the control console within immediate reach of the helmsman. The cabin has good overhead clearance of 6'10'' minimum in the pilothouse. The configuration of the pilothouse should be configured with forward sliding windows to give the best visibility and ventilation as possible. The cabin shall have shock mitigating rubber flooring. The flooring shall be removable and be easily maintained.

2. Cabin windows shall provide 360-degree unobstructed visibility from the helm with the cabin door open or closed. Windows shall be tinted safety glass. All windows and aft cabin door shall be weather tight, waterproof

and locking. Rear & Forward cabin door shall have an integral stainless lockset, be fully insulated and be fitted with dogs for vessel security. Front windshield shall not be tinted.

3. Cabin windshield shall be slanted forward bottom to top to reduce glare and better visibility. Roof spotter windows shall be mounted in the cabin roof for upper visibility as per the bidder's design. All windows shall be anodized aluminum frame of high quality.

4. The cabin shall be constructed and sound insulated to provide a maximum internal cabin (dB) decibel rating of 85 db with the door and windows closed when operating at rated engine capacity in any weather condition. Adequate acoustic insulating of hull, cabin, pump space, and engine space to provide this maximum level of noise exposure is the responsibility of the Bidder.

5. The front windshields shall have windshield wipers, and a fresh water reservoir.

6. There shall be a hinged radar mast installed on the aft part of the cabin roof. The mast must be easily hinged and handled by one person. The mast must be supported when inverted. **Bidders shall provide drawings with bid submission**. The following items must be able to be mounted on the mast or arch: radar scanner, other navigational lights, and flag halyard.

7. Floodlights will be such to fully light up a scene for 360 degrees, and light up the work deck.

8. The pilothouse will include a designated space for a work bench and storage under it.

9. Cabin shall have rubber stress matting throughout, to reduce crew stress. Matting must be removable and washable.

10. Vessel shall have a fully insulated interior. All cladding shall meet USCG fire rating requirements. Cladding shall be easily cleaned and maintained. **Bidder shall supply sample and descriptive literature to detail the cladding they propose with bid submission**. Paneling should be easily removable and cleanable for craft maintenance.

11. Exposed interior aluminum shall be painted with light Grey Zolatone paint. The cabin shall have a white exterior and hull sides red, paint finish with appropriate epoxy primers. The hull bottom will be an International paint system with epoxy primers and antifoul as per the paint manufacturer's specifications.

12. Helm seats shall have a minimum of 20 inches in width. Three suspension type seats with fore and aft sliders shall be provided. Armrest shall be operable. Mounting shall provide for area below seat to be used for storage.

13. Cabin shall provide at a minimum the following items: a hinged chart table between the 2 starboard seats. This shall be mounted aft of the helm seat and ahead of the navigator's seat. There shall be an engineer's station/console to port of the helm with a third helm seat.

14. Cabin air will be conditioned by an RV style A/C unit that meets CBRNE standards and is of substantial size so to keep the cabin comfortable during the hottest and coldest times of the year using N.E. Florida average ambient temperatures as a guide in making determination of unit size.

D. ELECTRONICS AND NAVIGATION EQUIPMENT

The following marine electronic equipment shall be provided by the Bidder and installed by the boat builder:

- Icom 506 VHF radio with talk back feature with speaker. Bidder to install JFRD Fire Radio (supplied by JFRD)
- Depth sounder/Chart plotter – Garmin 7612XS. The Chartplotter will be installed with Chirp Chip. Side Scan Sounder Module with transom mount transducer.

- Garmin, GMR 18xHD radar dome, integrated with GPS with electrical supply and data cable runs.
- Whelen Mini Justice LED light bar installed above cabin top.

1. The bidder shall provide all required antennas.
2. Compass shall be Ritchie X-10, installed on dash.
3. Bidder shall arrange and install emergency lights on the cabin roof with bracket. These lights must be located in an area so they are visible from all sides of the vessel at all times.

E. WORK DECK AND EQUIPMENT

Deck area will be self-bailing and coated with a non-skid safety surface. The deck will have a large work area to facilitate dive operations, fire operations, rescue operations, and medical operations. The foredeck shall have a bow ramp 75" wide. There must be a small aft deck behind the house at foredeck level. The 1500 gpm pump/engine must be in front of cabin and recessed down into hull with a hinged box lid, to reduce the pump/engine box height.

1. A large tow post will be located on the stern for towing and will be attached to a structural member of the vessel.

2. Aluminum railings, minimum 1-1/2" will be used on the vessel for safety. The railing will extend around the forward half of the foredeck to the bow ramp on top of the gunnel. There shall be safety railing mounted on the cabin roof sides.

3. The dive door will be located on the port side and shall be 30" in width. The cut out shall be as low as possible and located adjacent the pump/engine box. It will be used for boarding and retrieving people from the water.

4. A ladder utilizing bent ¾" aluminum pipe welded to cabin sides just aft of aft window, to allow cabin top access.

5. Courtesy lighting shall be provided for safety on both fore and aft decks.

6. Bow storage lockers shall be made under the side gunnels each side of the bow.

7. The forward, aft deck and the cabin decks shall be the same height. Decks and hatches shall be quick draining so hatches do not hold water. There will be eight tie down locations recessed into the work deck.

8. The pump/engine hatch shall be weather-tight. Drainage shall be provided to reduce collection of standing water. Hatches shall be provided with robust 316 stainless hinges to prevent movement during rough conditions.

9. One (1) MSA Altair multigas meter, six (6) Hach 2884200 personal radiation detectors, six (6) Draeger Pac 3500 lightweight chemical detectors and six (6) Dupont BR528tyl level B flash suits shall be provided with the vessel.

F. ELECTRICAL

1. Wiring shall be installed as per ABYC and United States Coast Guard Rules and Regulations as a minimum. The Bidder shall provide an electrical schematic in the manual package. The schematic shall be a one-line diagram, follow the electrical runs as installed in the vessel, and match the labeling of the wiring runs. This shall not be a generic drawing, but an exact diagram of the purchased vessel. Wiring shall be loomed and all hull contact points shall have grommets, all wiring runs shall be properly supported with no chafe points.

Wiring runs shall be concealed behind cabin walls, cladding, or decorative cable trays, etc. Exposed wiring will not be accepted. Wiring shall be isolated from the hull to prevent electrolysis.

2. Wiring runs shall have easy access through removable panels, cable trays. Bidders shall provide details of their standard wiring installation practice with their bids.

3. Navigation lighting will be provided by USCG regulations for vessels of this size and service and marine grade. Approved lights will be arranged to display the correct light signals for free running, anchoring.

4. Electrical breaker panels shall be DC panels with sufficient and properly sized breakers for electrical and electronic gear. Breaker panels shall provide four (4) additional breakers as spares for future additions to the vessel. All breaker panels shall be Blue Sea backlit panels and have indicating lights for each breaker. A second panel shall be readily accessible to the helm and control the following items:

Pilothouse: (3) red/white interior lights

(1) Compass

Deck: (2) Whelen PFP1scene lights mounted on adjustable swivels, 1 top of cabin roof facing front, 1 top of cabin roof facing rear individually switched from operator controls.

(4) Whelen PFP1 scene lights mounted on side of cabin roof on adjustable swivels, fore and aft individually switched from operator controls.

(2) LED courtesy lights

(1) Anchor light

(1) Navigation lights

(1) Transom or stern light

5. All lighting is to be LED to reduce the amp draw and to reduce maintenance cost.

6. All DC power shall be controlled by a single master breaker.

7. Batteries shall be stored in a secure waterproof, properly vented, corrosion resistant battery boxes. Battery box shall be fully accessible. Battery cabling shall be 2/0 gauge as a minimum.

8. Vessel shall be provided with an appropriate marine four-way battery isolator switch mounted in the wheelhouse. Switch shall be mounted in an accessible area adjacent to the helm.

9. The vessel shall have minimum of two 12VDC power outlets. Three AC outlets will be mounted on the interior, locations to be determined.

10. Vessel shall be provided with a dimmer switch to control gauge and compass brightness during night operation.

11. Vessel will have a battery charger. All batteries shall be charged from engine. Switches shall have field disconnects to protect alternators.

12. Battery voltage monitoring shall be accomplished using a Blue Sea Systems digital three-bank voltmeter, to be connected to each battery.

13. Builder will perform an electrical load analysis to determine necessary generation needs for all installed electrical equipment and provide adequate generation capability.

14. Vessel will be supplied with a marine gasoline powered generator of 4KW or larger to power AC system. The generator and its cooling and exhaust systems shall be mounted aft deck and shall be fully accessible. It shall have its own panel in the cabin with remote starting.

G. FENDERING AND MOORING

1. A heavy duty 3" 'D' shaped rubber shall be fitted around the bow and sides of the vessel.

2. 6 Large cleats to be located (3 each side) port and starboard side and will be welded to the top of the gunwale.

3. A heavy welded aluminum bow eye will be affixed to the stem for trailering.

4. A heavy duty push knee fender system shall be fitted to the bow. The push knee shall be fitted with D-rubber bumpers.

5. A 2 tiered 1 ¼" aluminum removable engine guard with rope guides for towing shall be installed around the propulsion engines.

6. Attachment points will be provided on the exterior hull below the rub rail to accommodate the installation of 10 ½ inch by 30 inch hull guard twin eyelet fenders in the horizontal plane along both sides of vessel. Attachment via stainless carabineer.

H. PAINT, MARKINGS, AND PREPARATION

1. Paint system must be epoxy or polyurethane and must provide corrosion resistance from stray electrical current. Painted areas shall be sandblasted and prepared in accordance with the paint manufacture's specifications. Topcoats shall be free of runs and have a high gloss finish. Final paint dry film thickness shall be provided in accordance with paint manufacturer's instructions. The hull shall be painted red and the cabin white.

2. The interior exposed aluminum surfaces shall be painted with light grey Zolatone, the exterior of the cabin shall be painted white with appropriate epoxy primers and the bottom shall be antifouled.

3. The underwater portion of the hull will be coated with an epoxy bond coat and antifoul paint according to International Coating recommendations. Two coats bottom paint over three coats underwater primer.

4. The vessel will be lettered with 6" 3M Gold Scotchlite Reflective lettering and seals. JACKSONVILLE FIRE AND RESCUE DEPARTMENT, M39 and a JFRD Seal (appropriately sized for location), will be located on both sides.

IV. FIRE MAIN SYSTEM AND DISCHARGE OUTLETS

A. FIREFIGHTING CAPABILITY

1. The fireboat will be able to pump at a minimum, 1500 gallons per minute (GPM) at appropriate nozzle pressures. Higher gpm is desired. Water will be delivered to a minimum of five (5) locations on the boat.

2. The 2000 GPM Elkhart 8394 brass hard wired monitor will be operated electronically from inside the cabin at the firefighting control station for the roof mounted monitor. The firefighting control center shall provide complete control of the fire pump and associated automated equipment. The control center shall provide maximum visual observation of firefighting operations, while maintaining protection from smoke, heat, and weather. Piping shall not obstruct the vision of the operator or crew at any time.

3. Pump monitoring pressure gauges shall be provided and be adequate for the proper and safe operation of the pump. This shall include pump engine controls, discharge pressure gauge, oil pressure and temperature gauges. All controls and gauges shall be mounted at the firefighting console top port of the helm station.

4. The pump shall have (2) 5" large diameter discharges on the foredeck, up on the gunnels. Piping shall be 5" as required schedule 40 aluminum pipe. There will be (2) rear 2 ½ inch discharges one each side. All discharges are to have individual shut-off valves.

B. FIREFIGHTING PUMP SYSTEM

1. A single, dedicated gasoline marine engine shall be used to power a fixed firefighting system. Fuel shall be supplied by 1 fuel tank. The marine engine's horsepower must be able to drive a fire pump to deliver a minimum of 1500 GPM.

2. All components shall have design pressure ratings greater than the maximum pump discharge pressure.

3. The suction arrangement for the pump shall include a sea chest with a screened inlet, a valved outlet, and cleanout access from the working deck.

4. Open area of the screen shall be at least twice the cross-sectional area of the suction pipe.

5. The sea chest shall be provided with a back-flush system. The back-flush system may be air or water and shall have cathodic protection.

6. Piping shall be supported from the vessel structure to carry the load of the water-filled pipe plus a minimum of 50% overload supplied at the point of support.

7. Bracing shall be provided to resist nozzle reaction of discharge devices.

8. Easy access drains shall be provided to all portions of the discharge and distribution piping.

9. Vessel shall have a means of flushing the piping system with fresh water.

10. All piping shall be hydrostatically tested at 250 PSI for not less than one hour.

11. All pump controls and gauges shall be mounted at helm.

12. Engine must be a new marine engine.

13. Vessel shall be provided with manufacturer's standard engine gauge package with the following as a minimum: engine hours, tachometer, voltmeter, fuel, trim, coolant temp, oil pressure, engine temperature, and oil pressure.

18. Audible and visual warning devices for high engine temperature, and low oil pressure, convenient to the operator position shall be installed for each engine.

19. Bidder shall guarantee engines and transmissions, are installed in accordance with manufacturer's specifications and instructions. Bidder shall insure manufacture certification of all installations.

20. All equipment shall be arranged so it cannot be damaged by bilge water.

V. PROPULSION DRIVE SYSTEM

1. The boat shall be powered with two new outboard motors, 350 HP four-stroke gas engines of current year. The motors shall be inline 6 cylinders, supercharged and weighing no more than 725lbs each. Rebuilt motors

are not acceptable. Bidder shall provide and install engines and related accessories as per engine manufacturer's specifications for installation. Bidder shall meet steering manufacture's specifications for installation and operation. A binnacle control shall control engine throttle and transmission gear.

2. The vessel will have a top speed of no less than 40 knots. This shall be reached with the vessel crewed with three members of the Department (each to be 220 pounds) and rescue and fire-fighting equipment.

3. Stainless steel, counter rotating props will be used with outboard engines. The engines with be surrounded by a heavy duty aluminum 2 tier outboard guard, bolted to the vessel with towing guides. A raised section to prevent a tow line from sliding off will be installed on the bar outside of each engine.

VI. FUEL TANKS

1. There will be either single or dual aluminum fuel tanks that can hold up to 200 gallons of fuel. These tanks will be built and hydrostatically tested to the Safety Standards for Small Craft specifications. Fuel tanks will be suitably baffled, fitted with electric level gauges and isolated from the hull structure by neoprene or rubber padding. They will be strapped and supported by a support system.

2. Racor fuel filters.

3. Fuel gauge(s) at helm station.

4. Engine room is separated from the fuel tanks by a watertight bulkhead.

5. Engine room and hatches are acoustically and thermally insulated.

VII. ALARM SYSTEMS

1. The vessel will be equipped with bilge high water alarm sensors for each hull compartment, and a high temperature fire detection sensor in the machinery space, all wired to panels at the control stations. These alarm circuits will activate visual and audible warning devices at the control station in the event of a dangerous condition.

VIII. CATHODIC PROTECTION DEVICES

1. Bidder will have the vessel equipped with a corrosion monitoring and control system. A multi-level meter will be installed in the console, and connected to a reference anode to the hull.

2. The engines will be fitted with zinc anodes provided by the manufacturer.

3. Zinc hull anodes will be located wherever the boat builder sees fit to reduce corrosion due to electrolysis. Zinc mass shall be calculated as per ABYC requirements.

IX. BILGE PUMPS

1. The vessel will be equipped with two independent bilge pumps located in separate sections of the hull. The submersible pumps should have a minimum capacity of 2000 GPH each. Each pump will have an internal float switch and will be controlled by a toggle switch in the pilothouse. These toggle switches will allow for automatic or manual activation of the pumps. Each bilge pump shall have independent power feeds that are wired separate from the electric panel.

X. WARRANTIES

1. Hull and deck: minimum 10 years on materials and workmanship.
2. Engines and pump: full manufacturer's warranty.
3. Equipment: manufacturer's warranty.

XI. TRIALS:

The fireboat must successfully complete the trials listed below:

1. Maneuverability in various sea conditions.
2. Acceleration and deceleration while underway.
3. Fire pump capabilities including master stream shape, gpm output, and effect on the boat while monitor is flowing maximum capacity of pump.
4. Testing of all equipment on fireboat. The successful bidder shall make repairs, corrections, or re-designs, as appropriate, at no additional cost, if the boat fails the tests. The successful bidder will be responsible for transporting the boat back to the original place of manufacture for any work or modifications needed after trials during the warranty period.
5. The successful bidder shall notify the JFRD Tactical Support Division at least two (2) weeks before the date set for the sea or machinery trials.

XII. MANUALS

Bidder shall provide two (2) copies of the vessels operating manuals (one copy must be electronic). Systems covered shall be navigation, main propulsion, pumps, electrical, lubrication, firefighting systems, and communication.

XIII. TRAINING

Bidder shall provide hands on training on the water at time of delivery in Jacksonville for a minimum of two days. Bidder covering costs of training.

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QWS3270X 7/21/2017 11:56 AM
FAML6350 V5.1 ** NW COJ FAMIS PRODUCTION ** 07/21/2017
LINK TO: ACCOUNT SUMMARY INQUIRY 11:55 AM

FISCAL MO/YEAR : 10 2017 CURRENCY CODE :
INDEX CODE : FREP1F9 EMERGENCY PREPAREDNESS GRANTS
SUBOBJECT : 06401 MOBILE EQUIPMENT
PROJECT :
PROJECT DETAIL :
GRANT :
GRANT DETAIL :
USER CODE :

S	JULY 2017	ANNUAL BALANCE	ALL YEARS BALANCE
ESTIMATED REVENUES	.00	.00	.00
REVENUES	.00	.00	.00
UNREALIZED REVENUES	.00	.00	.00
BUDGET	.00	394,200.00	13,650,667.10
EXPENDITURES	.00	.00	13,256,467.10
ENCUMBRANCES	.00	.00	.00
PRE-ENCUMBRANCES	.00	.00	.00
REMAINING BALANCE	.00	394,200.00	394,200.00

F1-HELP F2-SELECT F4-PRIOR F5-NEXT
F9-LINK F10-PRIOR-MO F11-NEXT-MO

G014 - RECORD FOUND