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MUSEUM

Request for Proposal – HVAC Maintenance Services

BID DUE: MAY 29, 2024

Museum Contact: Brian Steele (907) 929-9295

1. **INVITATION:** The Anchorage Museum located at 625 C Street Anchorage Alaska is seeking proposals from qualified firms to provide commercial HVAC (Heating, Ventilation, and Air Conditioning) maintenance services. Our organization recognizes the critical importance of maintaining efficient HVAC systems to ensure optimal indoor air quality, comfort, energy efficiency, and protection of priceless works of art. The Anchorage Museum facility is approximately 247,000 sq. ft. and encompasses 3 major expansions utilizing separate heating and cooling mechanical systems. The HVAC systems run on a 24/7 (day a week) run scheduled. Because of the critical nature of the HVAC systems, we are soliciting qualified firms to **provide one full time journeyman level technician** to complete routine preventive and emergency repairs based on a 40 hr. 52-week schedule (2080 hrs. a yr.). Candidates must be able to work cooperatively with Museum maintenance staff and must have extensive experience working on wide verity of mechanical equipment including but not limited to chillers, boilers, air handlers, steam systems, humidification equipment and direct digital building controls.
2. **SCOPE OF SERVICES:** The selected firm will be responsible for providing a technician to work on an 8hr / 5 days a week basis. The contractor will also be required to provide "on-call" after hours service on an "as needed" basis. Billing for after hours call outs will be in addition cost over and above routine services. Contractors will be considered independent contractors and must provide their own training, PPE, workers compensation, liability, and vehicle insurance. Technicians will also be required to provide all their own tools, supplies, and transportation. All supplies utilized on site should be itemized and will be reimbursed with a maximum 10% mark-up. Daily work activities must be documented and provided to Facility Management in a timely manner. Technicians working in the building must be

certified journeyman level and should be familiar with commercial HVAC systems. From time to time, it may be necessary to have 2 (two) technicians working on a particular repair to help with lifting or to provide technical assistance. When approved and necessary, a second technician can be utilized and should be billed separately from the regular daily technician. This RFP does not include capital or major equipment replacement or upgrades. Listed below is more detail on the scope of services required, this list is not intended to be all inclusive list but rather to give the contractor a better understanding of the scope and nature of the maintenance work to be provided.

Scope of services

- Regular daily preventive maintenance checks and inspections.
- Provide regular routine maintenance and repair on all HVAC equipment based on industry best practices and manufacturers recommended maintenance schedules.
- Ordering of all parts and supplies as needed.
- Grease pumps, change belts, replace filters, and install maintenance tune-up kits
- Routine cleaning of HVAC units, ductwork, filters, and other components
- Daily monitoring and adjustment of HVAC controls for optimal performance.
- Prompt response to service calls and emergency repairs.
- Replacement of worn-out parts and components as necessary
- Help implement computerized PM schedule
- Monitoring of energy consumption and recommendations for efficiency improvements.
- Detailed reporting on maintenance activities, findings, and recommendations.
- Daily monitoring of temperature and humidity levels.
- Daily monitoring and response to computerized work orders and task lists
- Winterization and spring start-up of chillers and cooling equipment.
- Repair of refrigeration leaks and cooling system maintenance.
- Replacement of fan wall motors and related systems.
- Capacity to work on pneumatic controls and related equipment.
- Ability to work in tight spaces and or in inclement weather conditions.
- Ability to work independently and collaboratively when needed.
- Ability to lift 50lbs. routinely
- May be required to interact and direct HVAC subcontractors on a limited basis.
- Must be able to look and act in a professional manner (uniform required) and interact effectively with museum staff of varied backgrounds.
- Provide service recommendations and coordination to building management.

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3. **QUALIFIACTIONS:** Contractor must have a minimum of 10 years proven HVAC experience with a minimum of 5 years directly related to Museum or commercial HVAC systems. Contractor must have a proven ability to effectively communicate and work independently. Contractor to obtain and/or carry all necessary licenses, liability insurance, permitting, and workers compensation during the entirety of the agreement. Contractor shall maintain a minimum of 2 million ($2,000,000) in liability insurance for the duration of this agreement and provide a current certificate of insurance upon request of the Museum. Contractor to enter into approved contract upon award of bid.
4. **TERM:** The HVAC Maintenance contract will start upon acceptance of Contractor Bid and subsequent signing of a contract for services (On or about Jun1, 2024) and continue until December 31st, 2025. At the sole option of AMA this contract may be extended for two additional one-year terms.
5. **SPECIAL CONDITIONS:** The Anchorage Museum is open to the public 7 days a week for approximately 6 months of the year. The facility also hosts a multitude of exhibits, special programming, and public events. Work needs to be scheduled and planned to minimize disruption or impacts to operations and the public. Contractor may be required to modify work schedules to eliminate impacts to these programs. Additionally, the Museum is home to priceless works of art and artifacts. Special procedures are required to be followed when working around or near these objects. Contractor must keep a neat and clean work environment and remove tools and ladders at the end of the workday.
6. **RESPONSES:** Responses must be submitted to Brian Steele, Museum Deputy Director f Facilities and Operations, at bsteele@anchoragemuseum.org no later than 5:00 p.m. May 29th, 2024, Alaska Time. Please direct any questions and /or requests for site visits to Brian Steele at (907) 727-4892
7. **BID DUE DATE:** May 29, 2024

APPENDICES

Appendix A – Major Equipment List

ALL SCHEDULES COMPILED FROM PLANS OR ON-SITE NAMEPLATE OBSERVATION, WHERE ACCESSIBLE e= estimated

AIR HANDLER SCHEDULE

SYMBOL	MFGR/MODEL	FAN CFM	MOTOR DATA HP/VOLTS/PH	REMARKS
F-1	unknown	7127	e3/120/1	located in basement collections area
P-AHU-1	York model XTI-030X042-KAFA017A		2/200/3; 86.5% EFF, 82% PF	located in Fan room 2; Serves planetarium; SN AKTMXT0124
EW-AHU-1	Haakon model AIRPAK	54,000	(3) 25HP supply fans; (3) 10 HP return fans; 480V/3ph	located in NE mechanical room; heat wheel; SN 16-8861-130-C; RF VFD at 55 Hz; heat wheel VFD off; SF VFD at 48 Hz
SAF-1	unknown	57,000	(21) fans totalling 62.76 HP; 208/3	located in south FL2 fan room; serves most of FL1 and Alaska Gallery on FL2; has VFD fan wall; min OSA=20% during occupied hours based on CO2
AHU-1	Huntair	29,550 cfm	SF: (8) 3HP fans/460V/3ph	total 57 HP; located in west wing basement; Huntair fanwall - SF on VFD at 47 Hz; RF on VFD at 29 Hz; serves north gallery
AHU-2	Huntair	29,550 cfm	SF: (6) 7.5HP fans/460V/3ph	total 57 HP; located in west wing basement; Huntair fanwall - SF on VFD at 43 Hz; RF on VFD at 33 Hz; serves south gallery
AHU-3	Huntair	5,275	SF: (2) 2 HP fans/460V/3ph	total 10.5 HP; located in west wing basement; Huntair fanwall - SF on VFD at 21 Hz; RF on VFD at 40 Hz; serves restaurant
AHU-4	Huntair MCF 3650A	3,500	3/460/3	serves west wing basement

EXHAUST FAN SCHEDULE

SYMBOL	MOTOR MFGR/MODEL	CFM	MOTOR DATA HP/VOLTS/PH	REMARKS
EW-RF-1				on VFD, located in wood shop
EF-1	Twin City Fan & Blower, Type: BAF-DWD1; Size 445	31000	40/460/3; 93% EFF, 85% PF	located in garage, north side; interlocked with new MAU also in garage
EF-R-06	Cook 150H6B	1000	.75/480/3	Archeology
			RESTAURANT/KITCHEN	
EF-R-01	Cook 100R2B	620	.17/120/1	Dishwasher
EF-R-02	Cook 135R15D	1740	.5/120/1	Stove hood
EF-R-03	Cook 365VX11B	6788	5/480/3	Hood

EF-R-04	Cook 100R2B	600	.17/120/1	Toilet room
EF-R-05	Cook 165R5B	2780	.75/480/3	Toilet room

PUMP SCHEDULE

SYMBOL	MFGR/MODEL	GPM @ HD	MOTOR DATA HP/VOLTS/PH	REMARKS
P-CP-1	Grundfos UPS 32-160F		600w/208/3	located in P fan room, serves P-AHU-1 (?)
P-CP-1A	Grundfos UPS 32-160F		600w/208/3	located in P fan room, serves P-AHU-1 (?)
P-CP-2	Grundfos UPS 15-58FC		87w/115/1	located in P fan room; serves in-floor heat in planetarium
	Tidepool pump		4.03A/120/1	on VFD, 45 Hz; located in marine mechanical room
	Coastal pump		4.03A/120/1	on VFD, 45 Hz; located in marine mechanical room
	Pentair pump model SPKT-6		1.5/208/3	located in marine mechanical room
	Baldor pump motor		.33/110/1; 68% EFF, 80% PF	located in marine mechanical room
	Pentair pump model DYNIINI-1		1/115/1	located in marine mechanical room
EW-CP-3	Baldor motor, Altivar VFD ATV212HU40N4		5/480/3; 91% EFF, 93% PF	located in NE mechanical room, serve hydronics; on VFD 41.3 Hz, lead/lag
EW-CP-4				
EW-CP-5	Taco 0013-SF3-IDC	6 @ 22	.17/115/1	DHW re-circulation pump
CP1A	Baldor pump motor		7.5/460/3; 85.5% EFF, 70% PF	Located in basement chiller room; on VFD at 44 Hz
CP1B	Baldor pump motor			Located in basement chiller room; on VFD not running
CP3	Baldor pump motor			Located in basement, serves Chiller #1
CP4	Baldor pump motor			Located in basement, serves Chiller #2
Fountain Circ pump 1	Grundfos UPC 80-160		2300w/208/3	locked and tagged off
Fountain Circ pump0 2				
CP-1	Baldor motor		7.5/460/3; 91% EFF, 96% PF	located in North FL1 mechanical room; on VFD at 55 Hz; serves FL1 & FL2 heating
CP-2				off
WEST WING				
CP-14	Armstrong Astro-30B-C	5 @ 12'	80W/120/1	DHW re-circulation pump - kitchen
CP-13	Arnstrong ARMflo E8.2B	20 @ 20'	.17/120/1	DHW re-circulation pump
CP-12	Grundfos UP15-42F	6.5 @ 10'	.04/120/1	located in basement, radiant heat injection
CP-11				located in basement, radiant heat circulation
CP-10	B & G 1510-3BC		25/480/3	located in basement, chilled glycol, off

CP-9		450 @ 70'		located in basement, chilled glycol, on VFD at 50.9 Hz
CP-8	B & G 1510-2-1/2BB	210 @ 50'	6.2A/460/3; 87.5% EFF, 86% PF	located in basement, serves snowmelt cold side
CP-7				
CP-6	B & G 1510-2-1/2BB	350 @ 50'	10/460/3; 91.7% EFF, 84% PF	located in basement, on VFD at 21 Hz; serves snowmelt hot side
CP-5				located in basement, on VFD - not running; serves snowmelt hot side
CP-4	B & G 1510-3BC	300 @ 60'	10/460/3; 91.7% eff, 82% pf	located in basement, on VFD - not running; serves hydronic loop
CP-3				located in basement, on VFD at 46 Hz; serves hydronic loop
CP-2	B & G 1510-2BC	120 @ 60'	5/460/3	located in basement, on VFD - not running; serves AHU coils
CP-1			5/460/3; 89.5% EFF, 82% PF	located in basement; on VFD at 27 Hz; serves AHU coils
COND-1	Baldor motor, condensate pump		.33/115/1; 55% EFF, 68% PF	located in basement boiler room, condensate pump
COND-2				

STEAM GENERATOR SCHEDULE

SYMBOL	MOTOR MFGR/MODEL	MBH	MOTOR DATA HP/VOLTS/PH	REMARKS
P-H-1	Dristeem model VT-8	electric	33.3A/208/3	located in P fan room; serves planetarium; SN 1167090-01-01; mfg 2008
AG-H-1	Nortec GSTC500N	45-140	1.1A/120/6	NG fired, serves F-1 which serves north central and south addition
EW-H-1	Nortec model RS 010	3.8 kW	4.6A/480/3	located in NE mechanical room, serve EW-AHU-1
EW-H-2	Nortec model RS 010	3.8 kW	4.6A/480/3	
EW-H-3	Nortec model GS 50-CS	62 MBH	2A/120/1	
EW-H-4	Nortec model GS 50-CS	62 MBH	2A/120/1	
EW-H-5	Nortec model GS 50-CS	62 MBH	2A/120/1	
SB-1	Hurst job #0750962	837 (25 BHP)	.33/240/3	863 lbs/hr capacity; located in west wing sub-basement, SN V61-15-19
SB-2	Hurst job #0750962	837 (25 BHP)	.33/240/3	863 lbs/hr capacity; located in west wing sub-basement

HEAT PLANT SCHEDULE

SYMBOL	MFGR/MODEL	EFFICIENCY	MOTOR DATA HP/VOLTS/PH	REMARKS
B-1	Aerco Benchmark 1.5 Low Nox	95%	blower: 1/115/1	75 to 1500 MBH input, Modulating, condensing HW boiler; SN G-12-1577; located in No. Central mechanical room
B-2				75 to 1500 MBH input, Modulating, condensing HW boiler; SN G-12-1576
EW-B-3	Aerco BMK1000	93%	blower: 1/115/1	50-1000 MBH input, 950 MBH output, modulating, condensing HW boiler; Located in NE mechanical room
EW-B-4				
MAU-1	ICE		30/208/3; 91.7% eff	2967 MBH, 31,000 cfm constant volume; serves parking garage, interlocked with EF-1
WEST WING				
WB-1	Aerco MBK-2.0	92%	2.6A/480/3	100 to 2000 MBH input, modulating 20:1, condensing HW boilers, located in west wing sub-basement, serving west wing
WB-2				
WB-3				
WB-4				

COOLING PLANT SCHEDULE

SYMBOL	MFGR/MODEL	EFFICIENCY	MOTOR DATA HP/VOLTS/PH	REMARKS
AG-AC-1	Mitsubishi split AC, model PKA-A12HA6		1 Ton	66F room temp; located in server room, FL2, Alaska Exhibition area
AC-2-01	Mitsubishi split AC, model PKA-A36FA		3 ton	70F set point; serves FL2 elec. Equip. room above Janitor 215
	Mitsubishi split AC, PUY-A36NHA condensing unit			
AC-2-01	Mitsubishi split AC, model PKA-A36FA		3 ton	70F set point; serves FL3 elec. Equip. room
	Mitsubishi split AC, PUY-A36NHA condensing unit			
AC-2-01	Mitsubishi split AC, model PKA-A36FA		3 ton	70F set point; serves FL4 elec. Equip. room
	Mitsubishi split AC, PUY-A36NHA condensing unit			
CH-1	(6) Airstack ASP20A-V chiller/ (4)FCP3HBAAS freecooler	DX EER 9.6	DX: (12) 10 HP compressors, (12) 1 HP fans; Freecooler: (8) 2 HP fans	Located on FL2 roof, west wing; serve west wing; air cooled, 98.6 tons each
CH-2				

Chiller #1	McQuay model WHR110ES-ER10		115 RLA; (2) 25 HP compressors, (2) 35 HP comressors	Located in parking garage, serves FL1 & FL2 south wing; water cooled recip compressors
Chiller #2	McQuay model WGZ115CW12-ER10		89.1 RLA	
CT-1				located rooftop
CT-2				located rooftop
EW-CH-1	Airstack air cooled glycol chiller, model ASP030XC13H2AL1AAAEN -R410A	EER 11.1	(4) 14.7 HP compressors, (4) 4.1 kW fans	(2) 30 T modules; free cooling
	Evapco cooling tower, model ECOATW93G8			located west of Rasmussen addition, rooftop
DX-1	Air cooled condensing unit, McQuay ACZ010	EER 13.7	115.2 MBH	

UNIT HEATER SCHEDULE

SYMBOL	MFGR/MODEL	CFM	MOTOR DATA HP/VOLTS/PH	REMARKS
P-UH-1				serves fan room 2
	Trane UHS 0241TAAA	460	.63A115/1	17.4 MBH; serves FL2, Storage 211A
EW-UH-1	Rittling RH-121	1775	1.58A/115/1	55 MBH
EW-UH-2	Rittling RV-95	1775	2.2A/115/1	55 MBH, serves NE mechanical room
EW-UH-3	Rittling RH-121	1775	1.58A/115/1	55 MBH
EW-UH-4	Rittling RH-24	450	.7A/115/1	10.6 MBH
EW-CUH-1	Rittline RWI-300-04	400	.68A/115/1	17 MBH
EW-CUH-2	Rittline RWI-300-04	400	.68A/115/1	17 MBH
			WEST WING	
CUH-1-01	Sterling RC-1200-02	185	.07/120/1	12 MBH
CUH-1-02	Sterling FSI-1055-4	345	.10/120/1	17 MBH
CUH-1-03	Sterling RC-1200-02	185	.07/120/1	12 MBH
CUH-1-04	Sterling FSI-1055-4	345	.10/120/1	19 MBH
CUH-1-05	Sterling RC-1200-03	270	.07/120/1	13 MBH
CUH-1-06	Sterling FSI-1055-4	345	.10/120/1	19 MBH

CUH-1-07	Sterling RC-1200-14	1110	.2/120/1	60 MBH
CUH-1-08	Beacon Morris S/W42	35	.5a/120/1	4.28 MBH
UH-B-01	Sterling HS-136A	750	.05/120/1	18 MBH
UH-B-02	Sterling HS-118A	420	9w/120/1	11 MBH
UH-B-03	Sterling HS-118A	420	9w/120/1	11 MBH
UH-B-04	Sterling HS-136A	750	.05/120/1	18 MBH
UH-B-05	Sterling HS-136A	750	.05/120/1	18 MBH
UH-B-06	Sterling HS-118A	420	9w/120/1	11 MBH
UH-B-07	Sterling HS-118A	420	9w/120/1	11 MBH
UH-B-08	Sterling HS-118A	420	9w/120/1	11 MBH
UH-B-09	Sterling HS-118A	420	9w/120/1	11 MBH
UH-B-10	Sterling HS-118A	420	9w/120/1	11 MBH
UH-1-01	Sterling HS-136A	750	.05/120/1	18 MBH
UH-1-02	Sterling HS-136A	750	.05/120/1	18 MBH
UH-2-01	Sterling HS-125A	460	16w/120/1	13 MBH
UH-2-02	Sterling HS-125A	460	16w/120/1	13 MBH
UH-2-03	Sterling HS-125A	460	16w/120/1	13 MBH
UH-3-01	Sterling HS 108A	210	9w/120/1	3 MBH
UH-3-02	Sterling HS-136A	750	.05/120/1	18 MBH
UH-4-01	Sterling HS 108A	210	9w/120/1	3 MBH

HEAT EXCHANGER SCHEDULE

HX-1	B & G plate and frame	209.5 gpm hot side; 350.5 gpm cold side	snow melt

HOT WATER HEATER SCHEDULE

SYMBOL	MFGR/MODEL	GALLONS	NUMBER OF ELEMENTS	ELEMENT SIZE
EW-WH-1	Brandford White model EF100T150E3NA2	100	150 MBH	located in NE mechanical room, serves NE wing; 140F set point; SN ND37550788
WH-1	Bradford White model EF100T250E2NA2	100	250 MBH	located in West wing basement, serves west wing including kitchen; 140F set point; SN TL44326004
WH-2	Bradford White model EF100T250E2NA2	100	250 MBH	located in West wing basement, serves west wing including kitchen; 140F set point; SN WG45464904