

HVAC PREVENTATIVE MAINTENANCE SERVICES

Naugatuck Valley Community College

1. SCOPE

- 1.1. This contract will cover the preventive maintenance and inspection of the Air Conditioning, Heating, and Temperature Control Equipment for the following Naugatuck Valley Community College (NVCC) buildings:
 - Fine Arts Center
 - Student Center
 - Core Building (including parking garage)
 - Learning Resource Center/Library
 - Kinney Hall
 - Ekstrom Hall (including parking garage)
 - Technology Hall
 - Founders Hall
 - Central Power Plant
- 1.2. The contract is intended to provide a comprehensive level of preventative maintenance as outlined in Attachment A. Contractors must be capable of providing Emergency Service on a 24 hour, 7 days-a-week basis, with a two (2) hour response time. Contractors must also be capable of providing remote monitoring of the existing Building Automation System (BAS) 24 hours, 7 days per week.
- 1.3. This contract will provide:
 - 1.3.1. A licensed HVAC technician onsite a minimum of forty (40) hours per month to assist the NVCC staff in performing preventive maintenance to HVAC equipment.
 - 1.3.2. Remote monitoring of BAS during NVCC off-hours as follows:
 - Weeknights – 11:00 pm – 7:00 am
 - Weekends – 1:00 pm – 7:00 am
- 1.4. Existing building automation system is Johnson Controls Metasys® building management system.

2. CONTRACT PERIOD

- 2.1. NVCC intends that this contract shall be in effect for five (5) years from date of award. NVCC reserves the right to extend this contract for a period up to the full original contract term or parts thereof.

3. PRE-BID WALK THRU

- 3.1. Bidders shall visit the site and take other such steps as may be necessary to ascertain the nature and location of the work and the general location conditions which affect the work or the cost thereof.
- 3.2. There will be a mandatory Pre-Bid meeting on Friday April 30, at 10:am in room core 205 (above Public Safety office).
- 3.3. Failure to attend Pre-Bid meeting will result in the rejection of your bid.

4. SCHEDULING OF WORK

- 4.1. Inspection and routine maintenance and service shall be accomplished for all buildings as follows:
 - 4.1.1. Normal working hours – between 7:00 AM and 4:00 PM Monday through Friday excluding legal holidays. Will apply to all services including major repairs unless otherwise stated.
 - 4.1.2. Emergency work – Any repair work requiring equipment shutdown shall be accomplished in the minimum time possible. In case of failure beyond normal inspection and routine maintenance, the contractor shall respond with an adequate number of personnel with a level of expertise necessary to correct the problem. Contractor shall provide emergency repair service on a 24 hour, 7 days per week basis with a maximum two (2) hour response time. Contractor shall include fixed hourly rate for emergency work as part of the bid documents.
- 4.2. Contractor shall respond to non-emergency service calls within four (4) business hours, respond by phone within one (1) business hour, and a repair time of twenty-four (24) hours from response.
- 4.3. This contract may be cancelled and re-awarded if the Contractor fails to respond on site within the specified time period (2 hours for emergencies, 4 hours for non-emergencies) on three (3) documented occasions during the contract period. A response shall be defined as a service representative visiting NVCC and working on the equipment.

5. SCHEDULED MAINTENANCE REQUIREMENTS

- 5.1. Each location shall receive inspection and thorough preventive maintenance as appropriate. In addition, periodic tests and adjustments are to be made to ensure efficient and reliable operation of other major components of all equipment.
 - Fall Inspection: Check, Test and calibrate all controls for heating application. Verify, check and test all functions of equipment.
 - Spring Inspection: Check, Test and calibrate all controls for cooling application. Verify, check and test all functions of equipment.
- 5.2. Each scheduled call will have a specific set of tasks detailing exactly what is required to be performed and what special skills, tools or instruments are required to keep the equipment operating at peak level.
- 5.3. Maintenance intervals will be determined by contractor's experience, manufacturers' recommendations, usage, location and run-time intervals unless otherwise noted. A schedule of services shall be submitted to NVCC's designated representative, four (4) weeks prior to the service.
- 5.4. A service report will be completed after each call and provided to NVCC. A duplicate record will be maintained at contractor's site to update the history of the work performed.
- 5.5. A listing of typical service procedures shall include, but not be limited to the following:

- 5.5.1. REPAIR SERVICES: If in the course of a service call, it is determined that a repair to equipment or a replacement of a component would be required, NVCC's designated representative will be advised of the defect with a quote listing estimated cost. Subject to approval by an authorized agent of NVCC, work will be performed on a preferred time and material basis. Contractor to quote repair labor rates and materials required for repairs based on contracted pricing. NVCC reserves the right to obtain competitive bids for any/all repair work outside of this service contract.
- 5.5.2. OPERATIONAL SUPPORT: Contractor will make recommendations to improve equipment efficiency and reliability, or reduce operational costs. A summary of services performed will also be prepared upon request.
- 5.5.3. INSPECTION: NVCC's designated representative reserves the right to inspect and/or oversee any maintenance work done by Contractor. After inspection, any maintenance work that is found to be inadequate or unsatisfactory shall be corrected promptly at no additional charge.

6. CONTRACT REQUIREMENTS

- 6.1. Contractor shall provide full service maintenance for all equipment and/or systems, including temperature controls, for each of the buildings listed.
- 6.2. All normal wear and replacement parts and labor necessary to provide preventive maintenance shall be provided (filters, belts, grease, oil, etc.)
- 6.3. All repairs, replacement parts and labor necessary to provide a functional system shall be included.
- 6.4. NVCC shall provide reasonable means of access to all devices that are included in this contract.
- 6.5. The piping, ductwork, and wiring pertinent and integral to the equipment covered under this contract will be maintained as it affects the proper operation of the equipment. The replacement of piping, ductwork, or wiring due to corrosion, physical damage, or other causes beyond the Contractor's control is not included.
- 6.6. Contractor shall not charge NVCC for travel to and from its facilities. No travel time, mileage, minimum charges, or portal-to-portal charges allowed. All maintenance and service provided under this contract shall include travel to and from location.
- 6.7. NVCC may, at its option, request upgrades or modifications performed on the various systems covered by this contract. The Contractor shall price man-hour labor for upgrades or modifications per contract pricing. All man-hour labor shall be for job-site labor only.
- 6.8. Contractor shall provide and maintain adequate inventory of replacement parts and components to maintain all equipment.
- 6.9. Products, parts, and accessories furnished under this contract will be guaranteed against any defects due to faulty material and/or workmanship.
- 6.10. In addition to manufacturer's standard warranties, the Contractor shall guarantee to make replacement of defective parts or material, and correction of defective workmanship, including labor, materials, and shipping

charges involved, at no additional cost to NVCC for a period of one (1) year from date of inspection and substantial completion.

- 6.11. The Contractor shall guarantee its repairs to be free from defects in materials and workmanship, given normal use and care, for 90 days after completion of repair.

7. SECURITY

- 7.1. Contractor must adhere to established security and/or property entrance policies and procedures established for each location. It is the responsibility of each Contractor to understand and adhere to those policies and procedures prior to any attempt to enter the premises.

8. CONTRACT PRICES AND BILLING

- 8.1. NVCC agrees to pay invoices in arrears, on a net 45-day basis after receipt of invoice. The Contractor shall bill NVCC for the services provided. Billing notices shall include detailed information and services performed. Late payment charges shall be calculated in accordance with the Connecticut General Statutes.

9. CONTRACTOR QUALIFICATIONS

- 9.1. The Contractor shall be capable of performing all services required herein. Contractor agrees to act as an independent Contractor in performing all services under this Contract and, except as otherwise outlined in this Contract, agrees to maintain complete control over its employees (such control over the repairers being limited to the context of this Contract). Contractor shall furnish agency with. The following items are required with your bid:
- 9.2. The Contractor shall hold a current S-1 License. All service personnel performing work on the jobsite must have as a minimum, a current journeymen's S-2 License. Copies of licenses must be included with your bid.
- 9.3. List of names and phone numbers of at least three specially trained technicians for heat pumps and air conditioning equipment; and three servicemen for chillers, hot water heaters and gas burners with the appropriate licenses that can conduct the necessary tasks to ensure that equipment is properly maintained to manufacturer specifications.
- 9.4. All required bid documentation with required signatures. (See bidders checklist)

10. SUBLETTING OR ASSIGNING OF CONTRACT

- 10.1. The Contract or any portion thereof, or the work provided for therein, or the right, title, or interest of the Contractor therein or thereto may not be sublet, sold, transferred, assigned or otherwise disposed of to any person, firm, or corporation, or other entity without the prior written consent of the State. No person, firm or corporation, or other entity, other than the Contractor to

whom the project was awarded is permitted to commence work on the project unless such consent has been granted.

11. INSURANCE

- 11.1. The successful bidder must, without expense to NVCC, procure and maintain throughout the contract award term insurance of the kinds and in the amounts hereinafter provided, from insurance companies authorized to do such business in the State of Connecticut, covering all services contained herein.
- 11.2. Vendor shall assume any and all deductibles in the described insurance policies. The Vendors insurers shall have no right of recovery or subrogation against the State and the described insurance shall be primary coverage. Any failure to comply with the claim reporting provisions of the policy shall not affect coverage provided to the State. Each required insurance policy shall not be suspended, voided, cancelled or reduced except after 30 days prior written notice by certified mail has been given to the State. "Claims Made" coverage is unacceptable, with the exception of Professional Liability. Vendor agrees that he/she will not use the defense of sovereign immunity, the adjustment of claims or in the defense of any suit, unless requested by NVCC.
- 11.3. Contractor shall not commence work under this contract until it has obtained all insurance required under this Section. Certificates of Insurance shall be forwarded to NVCC upon request. Updates on the insurance coverage are the responsibility of the Vendor. Insurance requirements will be strictly enforced,
The kinds and amounts of required insurance are:
 - 11.3.1. Commercial General Liability
 - 11.3.1.1. \$1,000,000 Combined Single Limit per occurrence for bodily injury, personal injury and property damage. Coverage shall include Premises and Operations, Independent Contractors, Products and Completed Operations, Contractual Liability and Board Form
 - 11.3.1.2. Property Damage coverage. If a general aggregate is used, the general aggregate limit shall apply either separately to the project or the general aggregate limit shall be twice the occurrence amount.
 - 11.3.2. Automobile Liability
 - 11.3.2.1. \$1,000,000 Combined Single Limit Automobile Liability insurance shall be maintained against claims for damages resulting from bodily injury, including wrongful death, and property damage which may arise from the operations of any owned, hired or non-owned automobiles used by or for the Contractor in any capacity in connection with carrying out this contract. The State of Connecticut shall be listed as Additional Insured on coverage's specified in A & B. Said coverage's is to be provided by insurance company satisfactory to the State. Any deductibles or self-insured retention's must be declared to and approved by the State.

11.3.3. Workers Compensation and Employers' Liability

- 11.3.3.1. Statutory coverage in compliance with the Compensation laws of the State of Connecticut. Coverage shall include Employers' Liability with minimum limits of \$100,000 each accident, \$500,000 disease-policy limit, \$100,000 disease-each employee.

11.3.4. Miscellaneous Professional Liability Insurance

- 11.3.4.1. Provide for a total limit of \$1,000,000 to cover any act, error or omission to cover any bodily injury or property damage claim arising from the performance of the designated professional services.

11.3.5. Minimum Scope of Insurance

- 11.3.5.1. All Liability insurance policies shall be written on an "occurrence" basis only. All insurance coverage is to be placed with insurers authorized to do business in the State of Connecticut and must be placed with an insurer that has an AM. Best's Rating of no less than A-, VII. All certificates of insurance shall be filed with the NVCC Business Office on the standard Certificate of Insurance form showing the specified insurance and limits. The State of Connecticut shall be named as an Additional Insured. The contractor's insurer shall have no right of recovery of subrogation against the State and the contractor's insurance shall be primary coverage.

12. REPORTING REQUIREMENTS

- 12.1. Upon request, the Contractor shall be required to furnish NVCC with a summary of the total purchases made under this contract.
- 12.2. Upon request, the Contractor shall provide detailed reports to NVCC of repairs and maintenance history of all equipment. NVCC may reasonably request additional reports if needed and the Contractor shall use every effort to provide such reports.
- 12.3. During the term of the Contract, the Contractor shall afford the officers, attorneys, accountants, auditors, and other authorized representatives of the State free and full access to the records during normal business hours. The Records are deemed to be the property of the State and shall be delivered to the State no later than thirty (30) days after the expiration or cancellation of the Contract or 30 days after the Contractor receives a written request from the State for the records.

13. AUDIT

- 13.1. At the option of the State and at its own expense, periodic audits may, at reasonable times, be made of the Contractor's books and records insofar as they pertain to the Contract. Such audits will be conducted by the State or a representative appointed by the State. Said books and records shall be made available to the Auditors of Public Accounts of the State of Connecticut.

14. QUESTIONS

- 14.1. Questions shall be submitted in writing no later than (*Date*) by COB and mailed to the Purchasing Department, 750 Chase Parkway, Waterbury, CT 06708 Attention: Donn Scott or emailed to: dscott@nvcc.commnet.edu

Verbal responses will be non-binding

15. BASIS OF AWARD

- 15.1. It is the intent of NVCC that this contract be awarded to lowest, qualified, responsible bidder for all location listed. However, NVCC reserves the right to group items and/or make an award to multiple vendors.

Lowest shall be:

- Total cost of all inspections
- Plus normal labor rate x 40 hours *
- Plus emergency service rate x 5 hours *

** Rates are estimates used for bid evaluations*

- 15.2. Qualified, responsible bidders are those bidders who:

- Have trained technicians that can conduct the necessary tasks to ensure that equipment is properly maintained to manufacturer specifications.
- Have the appropriate licenses to provide this type of work.
- Have parts in stock as required
- Provide Emergency Service after normal working hours (i.e. 24/7 coverage).
- Attendance at the required pre-bid meeting and site inspections.
- Completion of all required bid documents.

16. PRICE ADJUSTMENTS

- 16.1. Bid prices will remain firm for the first year of the contract period. After the first year of the contract period and annually on the anniversary of the contract award date thereafter, the awarded Contractor may file for a price increase consistent with and relative to price changes originating with the manufacturers parts and/or labor rates. Requests for such an increase must be fully and properly documented and, if approved, shall be firm for the remainder of the contract year.
- 16.2. NVCC reserves the rights to reject any requested price increase deemed excessive in the opinion of NVCC and cancel the contract. The Contractor must submit a formal request for an increase to the Purchasing Department of NVCC, 750 Chase Parkway, Waterbury, CT 06708, no later than thirty (30) days prior to the effective price increase date. The request shall contain the date the increase takes effect. No retroactive increases will be allowed. In the event a retroactive request for a price increase is received, NVCC will set the effective date of the increase as ten (10) days from the receipt of the request.

- 16.3. THE NEW PRICING MEDIUM MUST BE SENT WITH THE REQUEST FOR INCREASE.

17. STANDARD WAGE RATES

- 17.1. This Bid involves the employment of service workers. Contractors must comply with all provisions of Substitute Senate Bill No. 1056, Public Act No. 99-142, an act setting Standard Wage Rates for Certain Service Workers. If any state contract for services exceeds the value of \$49,999.00, the Contractors will be required to certify to the Labor Commissioner that the wages and benefits paid to its employees are not less than the standard rate established for this job classification.
- 17.2. Standard wage rates in effect at the time of RFP shall be included.
- 17.3. Contractor shall furnish employee payroll records to NVCC upon request.
- 17.4. Information regarding this Public Act and when it applies can be obtained from Department of Labor's website:

<http://www.ctdol.state.ct.us/wpwksnd/prevwqfm.htm>

Additional documents describing the standard wage rates will be included as part of this bid package (or added as an addendum).

- 17.5. Any required employer who violates the requirements to pay a standard wage rate shall pay a civil penalty in an amount not less than \$2,500.00 for each offense.
- 17.6. Questions concerning the provisions and implementation of this act should be referred to Gary W. Pechie, Director, Connecticut Department of Labor, Wage and Workplace Standards Division, 200 Folly Brook Blvd., Wethersfield, CT 06109-1114 (860) 263-6790 or his designated representative.

18. CONFORMITY WITH CONTRACT

- 18.1. In the event NVCC determines that the service performed or materials furnished by the Contractor are defective, not in conformity with the contract requirements, or has resulted in an inferior or unsatisfactory level of service, NVCC shall order the Contractor, in writing, to correct the nonconforming condition with seven (7) days of receipt of letter. Upon failure of the contractor to comply, NVCC shall have the authority to correct the condition by other means, including the use of State employees or by separate contract. The costs of the action taken by NVCC shall be deducted from any monies due or to become due to the contractor under this contract.
- 18.2. Notwithstanding the above notice provisions, if NVCC determines that a condition exists which may adversely affect the health or safety of a person or property, NVCC shall order the Contractor to correct the condition immediately. Upon the refusal of the Contractor to comply with the order or a determination by NVCC that the Contractor is unable to correct the condition, NVCC shall have the authority to correct the condition by other means without further notice. Should the Contractor fail to adhere to the specifications and requirements, NVCC may, at its option, withhold any

payments due until such time as the nonconforming items are corrected. NVCC may also assess financial penalties as described in these specifications. If NVCC has cause to correct a condition that, in the opinion of the NVCC, should have been done by the Contractor, NVCC may elect to assess financial penalties and/or the additional cost to NVCC to obtain other means to correct the nonconforming item. Continual or intentional breaches of contract will be causes for termination.

19. CANCELLATION

- 19.1. NVCC reserves the right to cancel any unfulfilled portion of the contract (30 day written notice) providing, in the opinion of the NVCC, services and/or materials supplied by the Contractor are not satisfactory or consistent with the terms of the contract. Upon cancellation, the maintenance charges will be prorated over the period the contract has been in force.

ATTACHMENT A - PREVENTIVE MAINTENANCE CHECK LIST & SCHEDULE

The following list of preventive maintenance tasks is to be used as a guide only. The Contractor shall perform the necessary preventive maintenance as recommended by the manufacturer of the equipment and shall incorporate as a minimum the following checks and functions into his work schedule:

1. Temperature Control Devices (annually)
 - Thermostats and Temperature Controller Devices
 - Calibrate as necessary.
 - Check general condition.
 - Replace device if defective - NVCC will pay for parts as separate item.
 - Review sequence of operation
2. Control Valves (annually - except as noted)
 - Clean stems.
 - Check packing for leaks.
 - Lubricate packing as required; replace if required.
 - Check for proper seating; replace if required.
 - Check for proper shut-off.
 - Check operator diaphragm (pneumatic).
 - Check general condition/operation (semi-annually)
3. Mixing Boxes and Variable Air Volume Terminal Units
 - Inspect box for ductwork connection.
 - Lubricate and adjust dampers and linkage.
 - Verify operation of control.
4. Relays (semi-annually)
 - Inspect relay to insure proper operation.
5. Air Compressors
 - Change the crankcase oil per manufacturer's specification (annually).
 - Oil the compressor motors per manufacturer's specification
 - Lubricate packing as required; replace as required (quarterly).
 - Check for moisture, oil, or dirt in the lines (monthly).
 - Clean the intake air filter, felt and screen types (quarterly).
 - Check the compressor belt (monthly).
 - Check the pressure relief valve (monthly).
 - Inspect/replace cartridge-type intake air filter (quarterly).
6. Dampers
 - Check for proper operation and adjust/repair as needed (semi-annually)
 - Lubricate dampers, linkage, etc.
7. Refrigeration Compressors
 - Check oil level and condition of oil (monthly).
 - Check for oil leaks (monthly).

- Check refrigerant charge condition through sight glass each visit.
 - Check for unusual noise and vibration each visit.
 - Check refrigeration compressor and refrigeration piping for leaks (quarterly).
 - Check operation of safety and capacity controls for proper operation, including high and low pressure cut-outs (semi-annually).
 - Perform efficiency test and record and report to City (semi-annually)
 - Mega-ohm motor and record (annually).
 - Perform annual oil analysis on chiller/compressor.
8. Expansion Valves (quarterly)
- Check all valves for evidence of sticking.
 - Check expansion valve bulb to see that it has good contact with suction line.
 - Check operation of all solenoid valves.
9. Evaporators
- Clean tubes bi-annually. Inspect tubes or fins annually, clean fins as required.
 - Check for rust and scale (quarterly).
 - Check and paint as needed.
10. Air handlers and exhaust fans (quarterly)
- Check blower mounting and tighten if necessary.
 - Check shaft alignment to motor.
 - Check blower pulley for security to shaft.
 - Check blower belt for condition and tension. Adjust or replace.
 - Oil or grease fan shaft bearings, dampers, and motor bearings.
 - Inspect tension on drive and fan belts, and change as needed
 - Check blower scroll for dirt and clean.
 - Check housing for rust and repair as necessary.
 - Clean coil faces.
 - Inspect coil for leaks
 - Purge drain line (condensate pan).
 - Verify operation of automatic controls
11. Electric Motors (quarterly except as noted)
- Check motor mounting and tighten if necessary.
 - Check motor pulley for security, alignment and tighten if necessary.
 - Check bearing wear.
 - Check wiring and conduit for condition.
 - Check motor for excessive heat and noise.
 - Check air passages and windings (i.e., clean away dust).
 - Check starter and contacts.
 - Oil or grease motor bearing as required.
 - Measure current draw and record (semi-annually)
 - Record mega-ohm reading annually.
12. Air filters

- Change filters when the pressure drop across the filters exceeds the recommended allowable pressure drop. The media used for replacement shall be equal to or exceed the efficiency rating of MERV-8.

13. Chillers (annually)

- Seasonal start-up and shutdown
- Check and record all temperatures, pressures, amperage, voltage while chillers are operating
- Check chilled water reset settings and function
- Water, oil and lithium bromide analysis
- Vibration analysis
- Inspect condenser and evaporator tubes
- Inspect solution heat exchanger
- Change the oil filter, refrigerant filters and purge filter/driers, for low-pressure chillers
- Perform diagnostics tests on the control panel and chiller starter
- Check wiring for overheating and tightness at the connections
- Lubricate related pumps and motors to their manufacturer's specifications

14. Boilers (Founders Hall)

- Seasonal start-up and shutdown
- Check all mountings and fastenings for tightness.
- Check draft over fire.
- Check hand holes and man holes for tightness.
- Check boiler access doors and plates for leakage.
- Check all control devices for proper operation.
- Check for adequate air cushion.
- Check safety relief valve.
- Check flame safeguard relay for proper sequence.
- Check flue gas temperature.
- Check water reading and determine efficiency of boiler.
- Check boiler jacket insulation for deterioration and repair.
- Inspect boiler base for signs of rust and repair.
- Check boiler flue piping to chimney for leaks.
- Clean and inspect firebox.
- Re-seal inspection plates if needed.
- Flush rust from water level control and boiler.
- Check and clean water make-up valve.

15. Pumps (heating, cooling, condenser water, etc.) (annually)

- Review operation with customer for problems and trends.
- Inspect for vibrations, unusual noises, odors, etc.
- Inspect mounting points for secureness and tighten.
- Inspect packing; adjust to a slow drip if necessary.
- Inspect mechanical seal.
- Verify flow in sealing/flushing line.
- Lubricate coupling.
- Lubricate motor bearings.

- Inspect system for leaks in piping, flange connections, etc., and record condition.
- Lubricate pump bearings.
- Inspect motor windings for dirt buildup.
- Clean ventilation openings (grills and/or screens).
- Visually inspect coupling.
- Inspect wiring for secureness and damage, and record condition.
- Megger motor at starter and record reading.
- Clean enclosure.
- Tighten terminal connections at starter.
- Inspect contacts for signs of wear, arcing, overheating, etc., and record condition.
- Measure operating amperage and record readings
- Report pump condition and repair requirements
- Record and report abnormal conditions, measurements taken, etc.

16. Cooling towers

- Drain and clean (annually).
- Lubricate motor and fan bearings (annually and as needed).
- Check/adjust V-belts, replace as needed (annually).
- Check for proper operation (semi-annually).
- Notify water treatment service contractor of water change.

17. Pneumatic controls (annually)

- Test and calibrate all room/terminal temperature sensors
- Inspect all pneumatic control devices such as damper and valve operators
- Inspect pneumatic tubing for leaks, damage, etc.

18. Variable Speed/Variable Frequency Drives (annually)

- Inspect and tighten connections
- Clean any dirt and/or dust

19. Building Automation System

Perform Metasys Software Maintenance
 Check And Calibrate All Analog Inputs Annually
 Check And Evaluate Operation Of All Systems
 Technician Must Be Onsite 16 Hrs. Per Month
 Technician Must Adhere To Established NVCC
 Computer Use Policies

20. Unit Ventilators/fan coil units throughout campus

- Inspect dampers
- Clean any dirt and/or dust