

**Clay County Schools**  
**Preventive Maintenance Contracts**

Clay County Board of Education is accepting bids for preventive maintenance contract for various schools and facilities. Bidders will have:

1. Business License  
Workers' Compensation Coverage  
\$2,000,000 Liability Insurance
  
2. Provide preventive maintenance in accordance with the schedule of services on all equipment listed on the "Equipment List" and according to the procedures detailed on the following pages.
  
3. All service materials such as lubricants, cleaning materials, belts for belt changes, chemicals for water treatment on boilers and chillers, will be included in this agreement. All truck costs, mileage and expenses, labor required for the performance of preventive maintenance work are included in this agreement.
  
4. Any service work or parts required beyond that which is covered under this agreement will be quoted for approval.
  
5. Must provide priority service. Bidder must be able to provide emergency service within 3-4 hours.
  
6. Upon completion of preventive maintenance or inspection service or emergency service a detailed report of the work performed will be given to the Maintenance Department of Clay County Schools. The Maintenance Department must be notified 48 hours prior to any preventive maintenance work being scheduled so we can expect their visits and be present if we desire, with any questions or problems. Equipment list and check off will be used for each preventive maintenance.

Qualified contractors are invited to visit the Clay County Schools website: <http://claycountyschools.org/> or contact Jared Fitzwater, Director of Student Services, at (304) 587-4266 or [jfitzwat@k12.wv.us](mailto:jfitzwat@k12.wv.us) to obtain information. Bids must be received no later than 3:00 p.m. local prevailing time on July 12, 2024, at the Administrative Office of Clay County Schools, PO Box 120, Clay, WV 25043.



## Key to Schedule of Services

AI = Annual Inspection

BC = Belt Change

CA = Combustion Analyzation

CC = Condenser Coil Cleaning

CDC = Condensate Drain Cleaning

CS = Calibration Service

EC = Evaporator Coil Cleaning

EI = Electrical Inspection of connections, relays, and contactors for wear and arcing.

HE = Heat Exchangers checked for rust, holes & cracks

OA = Oil Analysis

OC = Boiler Yearly Teardown

PS = Pump Service – greased and couplers checked and aligned annually.

PM = Operational Inspection

RPT = Refrigerant Pressure Test

WT = Water Treatment-check and add chemicals as necessary.

LIVE = Larger Isolation Valves Exercised Annually

**Equipment to be Serviced**

QTY	MFG	M/N	Description	Location
1	York	YCAS0138EB46ZGAD8TXXXX	Chiller	Big Otter Elem.
2	Baldor	CM2334T	Chilled Water Pump	Big Otter Elem.
16	Greenheck	GB-071-6-X	Exhaust Fans	Big Otter Elem.
2	Captive Air	NCA16FA	Power Ventilators	Big Otter Elem.
1	York		7.5 Ton Pkg Unit	Big Otter Elem.
1	EMI		2 Ton Split System	Big Otter Elem.
1	York	XTO-60X96	Air Handler	Big Otter Elem.
1	York	XTO-45-63	Air Handler	Big Otter Elem.
1	York	XTO-60X96	Air Handler	Big Otter Elem.
2	York	DR048E15P4SZZ20002A	4 Ton Pkg Unit	Big Otter Elem.
1	Data Aire		3 Ton Split System	Big Otter Elem.
1	Goodman	GSC13061BC	5 Ton Split System	CCMS-Basement
1	Goodman	GSC13061CB	5 Ton Split System	CCMS-Kitchen
2	Lochinvar	SBM-100	Boiler	CCMS
2	Armstrong	005180T3E184JM	Hot Water Pumps	CCMS
29	Daikin	Various	Classroom HVAC	CCMS
2	LG		Duchess Split Systems	CCMS
1	York	AHE30B3XH21B	2.5 Ton Split System	CCMS
1	York	J25ZJS24W2BZZ20001	Pkg Unit	CCMS-Gym
5	Carrier	48HJT009-551HE	8.5 Ton Pkg Unit	CES
1	Carrier	48HJTS00-5-551HE	4 Ton Pkg Unit	CES
1	Carrier	48HJR005-551HE	4 Ton Pkg Unit	CES
1	Carrier	48HJT004-541HE	3 Ton Pkg Unit	CES
4	Carrier	48HJR008-541HE	7.5 Ton Pkg Unit	CES
5	Carrier	48HJR006-541HE	5 Ton Pkg Unit	CES
2	Trane	YCD18B3LAEA	15 Ton Pkg Unit	CES
3	Trane	YCD090C3HABE	7.5 Ton Pkg Unit	CES
1	Trane	YCD151C3HAAA	12.5 Ton Pkg Unit	CES
1	Trane	YCD301C3LAAA	25 Ton Pkg Unit	CES
1	Trane	YCD150C3HABA	12.5 Ton Pkg Unit	CES
2	Greenheck	GR51-16	Fan	CCHS Boys & Girls Locker Room
2	Fans EF-8 EF-9		Fan	CCHS Boys & Girls Locker Room
1	Peerless	211A-10-H	How Water Boiler	CCHS CTE Bldg
1	Hankinson		Hot Water Pump	CCHS CTE Bldg
<b>QTY</b>	<b>MFG</b>	<b>M/N</b>	<b>Description</b>	<b>Location</b>
2	Peerless	211A-147-WP-1	8,360,000 BTU Hot Water Boiler	CCHS
2	Teledyne Laars	VW0775MN20CCAAXX	775,000 BTU Hot Water Boiler	CCHS

2	Baldor		Hot Water Pump	CCHS
1	Teledyne Laars	C00C02774	500,000 BTU Hot Water Boiler	CCHS for Fire Tank
1	Taco		Hot Water Pump	CCHS
2	Trane 1A RTU1B	OAND360A4-D1C400JT-A1M00AP7JN2F52BOB1A0	Pkg Unit	CCHS Gym
1	Trane RTU-AUD	YCH480B4L16B3ME7000D000HJOMK00T000000000	Pkg Unit	CCHS Auditorium
1	Trane RTU-04	YHC067E4RLA25DOC1A106000000000C00000000000	Pkg Unit	CCHS Band
1	Trane RTU-Kit	YSD150G4RHC1900C1A1000000000000000000000000	Pkg Unit	CCHS Kitchen
32	Baird	130HIDCOZRPXXXX		CCHS Classrooms
1	Trane RTU 3	OAGD144A-CIC400BD-A1G00AP8BD2D32BOC4A0	Pkg Unit	CCHS Cafeteria
1	Trane RTU 02	YHCO67E4RLA25DOCIA106000000000C00000000000	Pkg Unit	CCHS Foyer
1	Trane ODU-A1	TURYP0963AN40AN		CCHS Behind CTE Building
1	Trane ODU-B1	TURYP1443AN40AN		CCHS Behind School
1	LG ODU	ARUN060GSS4		CCHS By Gym
1	Green Heck	ERV-01 ERCH-20-15H-E16-01 S/N 15825407	RTU	Bus Garage
1	Goodman	GPG1424060M41AB S/N 1904217304	RTU 60,000 BTU	Bus Garage

## PREVENTIVE MAINTENANCE AGREEMENT

### SCHEDULE OF WORK – AIR HANDLER

1. Inspect fan/blower assembly.
2. Lubricate fan/blower bearings per manufacturer's recommendations.
3. Inspect belts and sheaves and adjust as required.
4. Inspect electrical wiring and tighten connections as required.
5. Inspect condition and check operation of fan motor contractor/starter.
6. Clean cooling and/or heating coils.
7. Record entering and leaving coil temperature(s).
8. Record fan/blower motor current consumption (amp draw).
9. Record manometer readings, if installed.
10. Check timeclock settings and day/night thermostat set points as required.
11. Inspect outside air intake screen.
12. Inspect economizer operation, where applicable.
13. Visually inspect dampers, linkages and lubricate as required.
14. Inspect condensate drain pan.

15. Check and calibrate all zone thermostats.
16. Condenser coils will be cleaned.
17. Furnish inspection report and advise of any abnormal conditions or necessary repairs.
18. Clean return screens under exhaust fans (Big Otter).
19. Replace belts 1 (one) time a year.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – HEAT PUMP**

1. Condenser coil will be inspected for heat transfer loss.
2. Blower wheels and fans will be inspected and cleaned to assure proper air delivery
3. Refrigerant will be checked for proper charge and visually inspected to assure system is leak free.
4. Exposed ductwork will be visually inspected for leaks and proper insulation.
5. Belts and pulleys will be inspected and adjusted as required.
6. Thermostats will be checked and calibrated as required.
7. Motors and bearings will be lubricated as required.
8. Controls and safeties will be tested.
9. Condensate drain will be cleaned.
10. Crankcase heater will be checked for proper operation.
11. Relays and contactors will be inspected.
12. Unit wiring and electrical disconnect will be inspected.
13. Economizer operation will be checked, where applicable.
14. Temperature and pressures will be recorded.
15. Evaporator coil will be cleaned.
16. Defrost timer will be checked.
17. Reversing valve will be operationally checked.
18. Auxiliary heat strips will be operationally checked.
19. Condenser coils will be cleaned 1 (one) time per year.
20. Furnish inspection report and advise of any abnormal conditions or necessary repairs.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – SPLIT SYSTEM**

1. Visually inspect for refrigerant leaks.
2. Check and calibrate safety controls and overloads.
3. Meg test compressor motor and record readings.
4. Check main starter, tighten all starter terminals and check contacts for wear.
5. Tighten motor terminals and control panel terminals.
6. Check crankcase heater.
7. Check external interlocks.
8. Lubricate fan bearings, if applicable.
9. Inspect and adjust belt alignment and tension, if applicable.
10. Check damper operation, lubricate and adjust as required, if applicable.
11. Replace belt annually.
12. Condenser coils will be washed 1 (one) time per year.

13. Report and uncorrected deficiencies noted.
14. Make operating log of temperatures, pressures, voltages, amperages, etc.
15. Check and adjust operating and safety controls.
16. Check operation of crankcase heater.
17. Check operation of control circuit.
18. Refrigerant pressure test.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – VENTILATION EQUIPMENT IN CLASSROOM**

1. Lubricate motors and bearings as needed.
2. Inspect for excessive noise and/or vibration.
3. Inspect for blower wheel, shaft and belts for wear, replace if needed.
4. Clean condenser coils.
5. Clean condensate drain.
6. Clean evaporator coil.
7. Clean and check operation of air doors and dampers.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – PACKAGE UNITS**

1. Condenser coil will be inspected for heat transfer, loss.
2. Blower wheels and fans will be inspected.
3. Refrigerant will be checked for proper charge.
4. Exposed ductwork will be visually inspected for leaks and proper insulation.
5. Belts and Pulleys will be inspected.
6. Thermostats will be inspected.
7. Motors and bearings will be lubricated as required.
8. Controls and safeties will be tested.
9. Condensate drains will be cleaned.
10. Crankcase heaters will be inspected.
11. Relays and contactors will be inspected.
12. Unit wiring and electrical disconnects will be inspected.
13. Economizer operation will be inspected.
14. Temperatures will be inspected.
15. Evaporator coils will be cleaned.
16. Condenser coils will be cleaned.
17. A report will be submitted after each inspection to the owner's representative detailing the work performed and noting any abnormal conditions.
18. Check heat exchangers for rust, cracks, and holes.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – HOT WATER BOILER**

1. Install and maintain boiler operating and trouble log.
2. Check all high limit controls.
3. Check all operating controls.
4. Visually inspect relief valve for leaks and operating pressure.
5. Check flame safeguard control sequence and flame signal of both pilot and main flame.
6. Check combustion with analyzer and make required adjustments to assure energy efficiency 1 (one) time annually.
7. Test for proper draft.
8. Visually inspect all valves piping in boiler room for fuel leaks, water leaks and steam leaks.
9. Inspect all fresh air vents to assure proper combustion air.
10. Blow down bottom of boiler.
11. Open and inspect water and fire side of boiler.
12. Check low water cut-off(s).
13. Disassemble low water cut-off, clean, reassemble and check performance.
14. Check operation of circulation pumps in the boiler room.
15. Check expansion tank for water level; check auto air vents for proper operation.
16. Check P.R.V. strainer screen and water pressure.
17. Furnish inspection report and advise of any abnormal conditions or necessary repairs.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **BOILER OPERATIONAL INSPECTION**

1. Check operation of limits.
2. Check operations of safety.
3. Check operations of flame safeguard control.
4. Check operations of feed pumps.
5. Check operations of condensate tank and feed controls.
6. Check operations of deaerator.
7. Check operations of water softener.
8. Check operations of chemical system.
9. Check operations of dampers and linkages.
10. Check low water cut offs blow down.
11. Check bottom blow down.
12. Minor adjustments of linkage.
13. Visually check combustion chamber.
14. Visually check valves, piping and supports.
15. Visually check gas train and valves.
16. Visually check oil train and valves.
17. Check combustion efficiency with electronic analyzer, O2 reading, stack temperature, efficiency and CO reading.
18. Check flame signal.
19. Notify customer of any needed repairs.



## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – PUMPS**

1. Inspect for vibrations, unusual noises, odors, etc.
2. Lubricate motor bearings.
3. Visually inspect system for leaks in piping, flange connections, etc.
4. Lubricate pump bearings.
5. Inspect motor windings for dirt buildup.
6. Visually inspect coupling and replace if necessary.
7. Measure operating amperage and record readings.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SCHEDULE OF WORK – SCREW CHILLER**

1. Check compressor oil level.
2. Check compressor oil pressure.
3. Check compressor oil temperature.
4. Check compressor suction temperature.
5. Check compressor discharge temperature.
6. Check compressor filter PSID.
7. Check compressor slide valve position %.
8. Check motor voltage.
9. Check motor amps.
10. Check cooler refrigerant suction pressure and temperature.
11. Check chill water inlet temperature.
12. Check chill water inlet pressure.
13. Check chill water outlet temperature.
14. Check chill water outlet pressure.
15. Check approach.
16. Check refrigerant discharge pressure.
17. Check discharge refrigerant corresponding temperature.
18. Check condenser refrigerant high pressure liquid temperature.
19. Check condenser refrigerant system air – degrees.
20. Check condenser water inlet temperature.
21. Check condenser water inlet pressure.
22. Check condenser water outlet temperature.
23. Check condenser water outlet pressure.
24. Check condenser water flow rate – GPM.
25. Clean all coils.
26. Grease/oil condenser fans.

## **PREVENTIVE MAINTENANCE AGREEMENT**

### **SPECIAL SERVICES/CONDITIONS**

- Preventative maintenance will be performed quarterly.
- Coils will be cleaned annually.
- Belts will be changed annually.
- Clay County Schools will continue to be responsible for filter changes.
- Combustion analysis will be performed on boilers annually.
- An oil analysis will be performed annually on the York chiller.
- All heat exchangers will be checked annually for rust, cracks, and holes.
- Check operation of fire tank heat at Big Otter Elementary.