TDIndustries, Inc. is licensed and regulated by the
Texas Department of Licensing and Regulation
P.O. Box 12157, Austin, TX 78711
1-800-803-9202 or 512-463-6599

Texas State Board of Plumbing
P.O. Box 4200, Austin, TX 78765
1-800-845-6584

# MAINTENANCE AGREEMENT

**Customer's Billing Name and Address:** **City of Addison, 5300 Belt Line Rd, Addison**

**Service to be provided at:** **14 City Buildings**

| | | | |
|---|---|---|---|
| **Effective Date:** | **Upon Signature** | **Account Manager:** | **Mary Kobe / Bryan Strode** |
| **Agreement Amount:** | **$179,414.31** | **Proposal Date:** | **10/9/18** |
| **Payment Schedule:** | **See appendix** **Per** **12 months** | **Agreement Terms:** | **Annual** |

**Note**: Contract can be renewed for two additional one year terms at the same price. Additionally 1st year can be prorated to align with customer fiscal year.

At the time of scheduled inspections and for the equipment listed on the attached pages, TDIndustries, Inc. agrees to perform the Planned Maintenance tasks described on the following pages.

TDIndustries, Inc. will make a total of four (4) Planned Maintenance Inspections over a total of four (4) scheduled site visits **(see exceptions)** during each term of this agreement. The Air Conditioning and Heating inspections include equipment startup and shutdown.

| | |
|---|---|
| ☐ PLANNED MAINTENANCE (PM) | ☐ ELECTRICAL MAINTENANCE (EM) |
| ☒ FULL MAINTENANCE (FM) | ☐ BUILDING SYSTEM INTEGRATION MAINTENANCE (BSI) |

Inspections shall be scheduled by TDIndustries, Inc. and will be based on manufacturer's recommendations; equipment location; application and type; and TDIndustries, Inc. experience. A service report will be presented after each service call for your records that shows the maintenance and repair work completed.

Beginning with the effective date, the customer agrees to pay, in advance, for the service described herein according to the payment schedule shown above and remit to P.O. Box 300008, Dallas, TX 75303-0008. This agreement shall continue in effect unless either party gives written notice and confirms their intention not to renew and it is received by a minimum of thirty (30) days prior to the effective date. Either party may cancel this agreement prior to the expiration of the agreement terms, provided a 30-day written notice is delivered and confirmed. TDIndustries reserves the right to invoice and be paid for work performed that exceeds the billings to date for early cancellation. TDIndustries, Inc. may annually adjust any charges for ongoing maintenance and services. This adjustment will be based on the Service Consumer Price Index and any local increases in labor and material costs. This agreement is not valid or binding until accepted by TDIndustries, Inc.

**TDINDUSTRIES, INC. TERMS AND CONDITIONS ARE A PART OF THIS AGREEMENT.**

| TDIndustries, Inc. | Customer |
|---|---|
| _____ | _____ |
| _____ | _____ |
| Printed Name and Title | Printed Name and Title |
| _____ | _____ |
| Date | Date |

**TDIndustries, Inc.** **13850 Diplomat Dr., Dallas, TX 75234 - 972-888-9500 - Fax #972-888-9520**

A/C - TACL-A26339C Plumbing – Larry Bartlett M-16723 Electrical - 32734

# DESCRIPTION OF SERVICES PROVIDED UNDER THIS AGREEMENT

☒ ***FULL MAINTENANCE (FM)***

This Full Maintenance Agreement is to provide services for the equipment referenced as "*Equipment Covered*". Full Maintenance coverage provides for all labor, parts, material and miscellaneous expenses (excluding refrigerant) associated with maintaining and repairing the equipment identified in this agreement. If applicable, this agreement assumes that the equipment listed is in good running, maintainable condition and eligible for a Full Maintenance Agreement. If on first inspection, repairs are found necessary, such repair charges will be submitted for owner's approval. If these repairs are declined, those items will be eliminated from the agreement solely at the discretion of TDIndustries, Inc. and the price of the agreement will be adjusted in accordance with the equipment covered. ***See Terms and Conditions.***

Compressor Coverage: Material - Yes ☒ No ☐, Labor - Yes ☒ No ☐ (see exceptions below)
**(2) Sites**
Conference Center
Service Center

Compressor Coverage: Material - Yes ☐ No ☒, Labor - Yes ☐ No ☒ (see exceptions below)
**(13) Additional Sites**

**Exclusions**

- **Compressors 2010 and newer are covered under the agreement. (See building list above)**
- **Compressor 2009 and older are not covered. (See building list above)**
- **Refrigerant is not included in this contract.**
- **Dectron pool unit and associated equipment are not included.**
- **Pleated filters will be used and changed quarterly except Athletic Club which will be changed six times per year.**
- **Condenser coils will be washed and rinsed two times per year.**
- **Water treatment is covered. Inspections will be once per month. Water Treatment equipment is covered under this agreement.**
- **TD Service Coverage is 24/7 accessible via 1-800-864-7717.**

## Note TD standard response times:

Emergency – 30 min response from TD representative and 4 hours on site.
Standard – 30 min response from TD representative and same day on site.

All efforts to exceed these response times are common practice for TDIndustries. TDIndustries has noted the Athletic Center and all Computer room units as top priority.

| Building | | Price | | | |
|---|---|---|---|---|---|
| Athletic Club & Expansion | $ | 53,801.01 | Police Substation | $ | 1,842.67 |
| Celestial Pump Station | $ | 2,743.08 | Service Center | $ | 25,388.51 |
| Conference Center | $ | 19,071.07 | Special Events | $ | 4,590.61 |
| Finance | $ | 6,408.61 | Stone Cottage | $ | 2,767.41 |
| Fire Station 1 | $ | 8,723.47 | Theater Center | $ | 26,318.00 |
| Fire Station 2 | $ | 3,889.59 | Town Hall | $ | 4,597.42 |
| Police and Courts | $ | 15,584.60 | Vitruvian Restrooms | $ | 3,688.26 |
| | | | Total All Buildings | $ | 179,414.31 |

## Standard Terms and Conditions

THIS PROPOSAL IS EXPRESSLY CONDITIONED UPON THE TERMS AND CONDITIONS CONTAINED OR REFERRED TO HEREIN, INCLUDING THOSE CONTAINED IN ANY ATTACHMENTS HERETO.

1. TDIndustries, Inc. liability on any claim for loss or damage arising out of this contract or from the performance or breach thereof or connected with the supplying of any labor, equipment, goods or material hereunder, or their sale, resale, operation or use, whether based on contract, warranty, tort (including negligence) or other grounds, shall not exceed the price allowable to such labor, equipment, goods or material, or part thereof involved in the claim. TDIndustries, Inc. shall not, under any circumstances, be liable for any labor charges without the prior written consent of TDIndustries, Inc. TDIndustries, Inc. shall not, in any event, be liable, whether as a result of breach of contract, warranty, tort (including negligence), or other grounds, for special, consequential, incidental or penal damages, including, but not limited to loss of profits, revenues, loss of the product or any associated product, cost of capital, cost of substitute products, facilities or services, downtime costs of claims of the Customer for such damages, If TDIndustries, Inc. furnishes Customer with advice or other assistance which concerns any labor, equipment, goods or material furnished hereunder, or any system or equipment in which of such equipment, goods or material may be installed, and which is not pursuant to this contract, the furnishing of such advice or assistance will not subject TDIndustries, Inc. to any liability, whether based on contract, warranty, tort (including negligence) or other grounds.

2. If TDIndustries, Inc. encounters asbestos, polychlorinated biphenyl (PCB) or other hazardous substances on the site, TDIndustries, Inc. will stop work and report the condition to the owner or owners' representative. TDIndustries, Inc. will not resume work in the affected area until the asbestos, PCB's or other hazardous substances has been removed or otherwise controlled so that it does not pose a health or safety threat.

3. Any installation dates given in advance are estimated. Installation will be made subject to prior orders with TDIndustries, Inc. TDIndustries, Inc. shall not be liable for failure to perform or delay in performance hereunder resulting from fire, labor, difficulties, delays in usual sources of supply, major changes in economic conditions, or without limitation by the foregoing, any cause beyond TDIndustries, Inc. reasonable control.

4. On arrival of any equipment, goods or material at the shipping address specified, Customer shall assume all risk of loss or damage to such equipment, goods or material.

5. In the event Customer requires TDIndustries, Inc. to delay shipment or completion of the work under this proposal, payment pursuant to this proposal shall not be withheld or delayed on such account. TDIndustries, Inc. shall have the right to deliver any portion of the equipment, goods or material to be furnished hereunder and to bill Customer therefore, and Customer agrees to pay for the same in accordance with terms of the payment hereof upon notification that such shipment is ready for delivery, notwithstanding the fact that Customer may be unable to receive or provide suitable storage space for any such partial delivery. In such event, such portion of the equipment, TDIndustries, Inc. may store goods or material ready for shipment at Customer's risk and expense.

6. The amount of any past, present or future occupation, sales, use, service, excise or other similar tax which TDIndustries, Inc. shall be liable for, either on its own behalf or on behalf of Customer, or otherwise, with respect to any equipment, goods, material or service covered by this proposal, shall be in addition to the prices set forth herein and shall be paid by Customer.

7. If the equipment, goods or material furnished hereunder requires the use of water or steam, re-circulated or otherwise, TDIndustries, Inc. shall not be liable for the effect of its physical or chemical properties upon said equipment, goods or material.

8. All skilled or common labor which may be furnished by the Customer shall be considered and treated as Customer's own employees, and Customer agrees to fully protect and indemnify TDIndustries, Inc. against all claims for accidents or injuries to such employees in the course of the work, or to any person, or persons through the negligence of such employees.

9. No oral representations are binding upon TDIndustries, Inc. unless reduced to writing and signed by an authorized representative of TDIndustries, Inc. All changes to this contract must be in writing.

**Customer Agrees:**

1. To provide access to all equipment during normal working hours.

2. To accept the judgment of TDIndustries, Inc. as to the best means to be employed for any corrective or repair work and as to the operation of the equipment.

3. That any service performed by anyone not authorized by TDIndustries, Inc. will release TDIndustries, Inc. from all obligations and cause any warranties provided under this agreement to become null and void.

4. That if customer requests or requires maintenance inspections to be made on overtime, that customer will pay the then prevailing difference between regular and overtime rates for labor performed.

5. Customer agrees to make payment in advance for services described. If customer defaults on payments, TDIndustries, Inc. will notify customer, and may cancel the contract for non-payment.

6. The customer acknowledges that TDIndustries, Inc. employees are a valuable asset to TDIndustries, Inc. The customer agrees to pay TDIndustries, Inc. an amount equal to 12 months of salary for each TDIndustries, Inc. employee who worked at the customer's facility that is then hired by the customer at any time during the term of this Agreement and for 60 days thereafter. In addition, the customer agrees to reimburse TDIndustries, Inc. for all costs associated with any training TDIndustries, Inc. provided to such employee during the three years before the date the customer hires such employees.

**Specific Exclusions:**

1. CABINETS, DUCTWORK, AIR BALANCE, INSULATION, WATER PIPING, DRAIN LINES, STEAM LINES, CONDENSER, EVAPORATOR, HEAT EXCHANGERS (GAS FURNACES, BOILERS, CHILLERS, ETC.), MOLD, ELECTRICAL WIRING OR SAFETY DEVICES, AND ITEMS BEYOND THE EQUIPMENT ITSELF. REPAIRS DUE TO FREEZING OR VOLTAGE PROBLEMS, CHANGES REPAIRS OR CORRECTIONS TO EQUIPMENT DUE TO DESIGN, CODE OR INSURANCE REQUIREMENTS.

2. Service and material required due to electrical power failure, burned out fuses, or other work excluded from this agreement.

3. TDIndustries, Inc. will provide under this agreement specifically exclude inspection, discovery, identification, prevention or remediation of Hazardous Substances caused by mold.

4. Loss, damage, or injury caused by failure or delay arising from causes beyond the control of TDIndustries, Inc.

5. Damage due to fire, water, war, vandalism, natural phenomena, and/or acts of God.

6. TDIndustries, Inc. has no obligation or responsibility except as specifically and explicitly proven for herein.

7. Parts and labor for heat exchanger replacement.

8. **Refrigerant is not included in this agreement.**

# EQUIPMENT COVERED

## *TOWN OF ADDISON HVAC EQUIPMENT LIST*

Updated 7/17/15

**Town Hall 5300 Belt Line Rd.**

1 each Lennox model #13ACD-60-230-02 serial# 5807D37819 condensing unit (installed 7/2007)
1 each Lennox model #13ACD-60-230-02 serial# 5807G15811 condensing unit (installed 9/2007)
1 each Lennox model #HS26-048-2P condensing unit (installed 9/1999)
2 each Lennox model #HS26-060-2P condensing units (installed 9/1999)
1 each Thermal Zone model #TZAA-360-2C757 condensing unit (installed 7/2015)
2 each Lennox model #CH23-65-1 evaporative coil units (installed 9/1999)
4 each Lennox model #C26-51/65FC-1 evaporative coil units (installed 9/1999)
2 each Lennox model #G24M4/5-120A-12 gas furnaces (installed 9/1999)
1 each Lennox model #G24M4/5-120A-6 gas furnace (installed 11/1997)
2 each Lennox model #G24M4/5-100A-12 gas furnaces (installed 9/1999)
1 each Lennox model #80MGF4/5-120A-1 gas furnace (installed 11/1997)

**Finance Bldg. 5350 Belt Line Rd.**

1 each Lennox model #13ACD-60-230-02 serial# condensing unit (installed 9/2007)
1 each Lennox model #HS26-060-2P condensing units (installed 9/1999)
1 each Lennox model #HS26-036-2P condensing unit (installed 9/1999)
1 each Lennox model #HS26-042-2P condensing unit (installed 9/1999)
1 each Lennox model #10ACB36-5P condensing unit (installed 9/1996)
1 each Guardian model #GCGD60S21S2B condensing unit (installed 2/2014)
3 each Lennox model #CH23-65-1 evaporative coil units (installed 9/1999)
2 each Lennox model #CH23-41-1 evaporative coil units (installed 9/1999)
1 each Lennox model #CH23-51-1 evaporative coil units (installed 9/1999)
2 each Lennox model #G24M4/5-120A-12 gas furnaces (installed 9/1999)
2 each Lennox model #G24M4/5-100A-12 gas furnaces (installed 9/1999)
1 each Lennox model #G24M3-75A-11 gas furnaces (installed 9/1999)
1 each Lennox model #80MGF3-75A-1 gas furnace (installed 10/1997)

**Service Center 16801 Westgrove Rd.**

1 each Lennox model# LGC060S2DS1G serial# 5604D11710 (installed 5/22/2004)
1 each Lennox model# LGC150S2BH2G serial# 5604D11547 (installed 5/22/2004)
1 each Lennox model# LGC060S2DS1G serial# 5604D11711 (installed 5/22/2004)
1 each Lennox model# LGC072S2BH1G serial# 5604D11673 (installed 5/22/2004)
1 each Lennox model# LGC180S2BS1G serial# 5604D10863 (installed 5/22/2004)
1 each Lennox model# LGC048S2DS1G serial# 5604D11800 (installed 5/22/2004)
1 each Lennox model# LGA060HS1Y (installed 9/1999)
1 each Lennox model# LGA042HS1Y (installed 9/1999)
1 each Lennox model# LGC060S2DS1Y serial# 5604D08135 (installed 5/22/2004)
* 1 each Lennox model HS29-261-3P condensing unit (installed 2/1998)
1 each Lennox model HS27-024-1P condensing unit (installed 9/1999)
* 2 each Janitrol model A24-05 air handler (*1 installed 2/1998 & 1 installed 9/1999)
* 1 each Lennox model CB29M-5-1 air handler (installed 2/2003)
* 1 each Lennox model 10ACC-048-230-02 condensing unit (installed 2/2003)
*2 each Lennox model# XC14060 condensing unit (installed 8/2008)
*2 each Lennox model CBX32M -060 air handler (installed 8/2008)
2 each Trane model 4TTR3060D1000AB condensing unit (installed 2/2014)
2 each First Company model 60PHYXO Fan Coil Unit (installed 2/2014)
1 each Trane model 4TTR3018G1000AA condensing unit (installed 2/2014)
1 each First Company model 18HX-5 Fan Coil Unit (installed 2/2014)
4 each Reznor model #UDAP 100 unit heaters (installed 10/2006)
1 each Reznor model #UDAP 75 unit heater serial# BNC796EN84205X (install 2/2015)
1 each Reznor model CEEXL60 unit heater
1 each Dayton model #3E366A unit heater serial# C8713886 (installed 11/98)
1 each Lennox model #LF24-50A-1 unit heater serial # 6396G77643 (installed 1/9/97)

* - Server Room Spares

**Police & Courts Bldg. 4799 Airport Parkway**

3 ea Lennox model #LCA120HN1Y Pkg. units (installed 9/1999)
1 ea York model #D1EB060A25B Pkg. unit (installed 9/1999)
2 ea York model #D1EB036A25B Pkg. units (installed 9/1999)
1 ea Lennox model #LCA060HN1Y Pkg. unit (installed 9/1999)
1 ea Lennox model #CB30M65-4P serial# 5807E02972 electric heat and fan coil unit (installed 6/2007)
1 ea Payne PA13NR060-J condensing unit (installed 11/2014)
1 ea Lennox model #10ACB48-10P condensing unit
1 ea Janitrol 4 Ton air handler
1 ea Carrier model #50TJ-014-511 serial #2396G30575 (installed 7/5/96)
1 ea Mitsubishi model PLA-A36BA indoor / PUY-A36NHA outdoor (installed 9/2007)
1 ea Daikin model FTXS12DVJU indoor / RXS12DVJU outdoor (installed 8/2007)

**Police Sub-Station 4943 Addison Circle Dr.**

1 ea Carrier model #38CK030320 serial #2997E09413 condensing unit (1997)
1 ea Carrier model #FA4ANF030 serial #4797A14451 air handler unit (1997)

**Fire Station #1 4798 Airport Parkway**

2 each Lennox model #LGA060HS1Y Pkg. units (installed 9/1999)
1 each Lennox model #GCS16-653-125-54 Pkg. unit (installed 11/95)
1 each Lennox model #HS24-411-1P condensing unit (installed 10/1995)
1 each Janitrol model #A36-15 fan coil unit w/electric heat (installed 4/1996)
1 each Lennox model #LGA042HS1Y Pkg. unit (installed 9/1999)
2 each Lennox model # HS290723Y condensing units (installed 8/2008)
2 each Lennox model# CB29M654P air handler unit (installed 8/2008)
1 each Lennox model #G40 Heater (installed 2/2005)
2 each Lennox model# unit heaters

## Fire Station #2 3950 Beltway Dr.

2 each Lennox model #GCS-653-125-54 Pkg. A/C units (installed 11/8/1995)
1 each York model #DINA042N05625C Pkg. A/C unit (installed 9/1999)
2 each Hastings model #F200 unit heaters

**Athletic Club 3900 Beltway Dr.**

Chiller- Trane model #RTHB130 (start-up 4/1997)
Boiler #1- Rite model #200WG serial# 8620416
Boiler #2- RBI Model LW600 serial# 061674282
Day Care- York model #CM-3610
Janitrol Furnace EF36-10 Serial 870400085.
Water Tower- Ceramic model# XL75P3 (installed 7/1997)
Air Handlers- 11 each – 2 were changed with Carrier M39 units 1/2003
VAV boxes: 4 each Trane model#PAR17112773SPDDD03 (installed 7/1997)
6 each Trane model#PAR06072773SPDDD03 (installed 7/1997)
3 each Trane model#PAR11112773SPDDD03 (installed 7/1997)
Tower Pump in HVAC equipment room -
Model: 5KS254AL205A, General Electric 15 hp, 3 ph, 230/460 volts, 60Hz, 1770 rpm, 254T Frame Type K.S., 1.15 Service Factor.
Boiler Pump in HVAC equipment room -
Part # 6-357719-01, Century Electric MagnaTek 5.0 hp, 3 ph, 23-/460 volts, 60 Hz, 1745 rpm, D184T Frame Type S.C., 1.15 Service Factor.
Chiller Pump in HVAC equipment room -
Part # 6-349106-01, Gould E Plus 15 hp, 3 ph, 230/460 volts, 60Hz, 1755 rpm, G2541 Frame Type SCE, 1.15 Service Factor.
Two Water Treatment Injector Pumps in HVAC equipment room -
1 each Model A141-151, Liquid Metronics, 115 volts, 1 amp.
1 each Model LE13SA-PTC1-NA002, Pulsafeeder, 115 volt, .6 amp.

**Athletic Center Expansion Added 7/2003**

Package Units
5 each Carrier model# 50BYN008-6 7.5 tons
Electric Duct Heaters
5 each TUTCO open coil slip-in
VAV Boxes
2 each Enviro-tec model SDR-EH
1 each Enviro-tec model SDR

**Conference and Theatre Centre 15650 Addison Rd.**

Note: ACC = Addison Conference Centre
ATC = Addison Theatre Centre

Package Units

| | Location | Make | Model# | Serial# | Tonnage | |
|---|---|---|---|---|---|---|
| RTU 1 | ACC | York | ZR300W24S4RZZ10001 | N1D3659808 | 25 | |
| RTU 2 | ACC | York | ZR300N24S4RZZ10001 | N1D3659807 | 25 | |
| RTU 3 | ACC | York | ZR102N10P4RZZ50001 | N1D3662466 | 8.5 | |
| RTU 4 | ACC | York | ZR102N10P4RZZ50001 | N1D3662467 | 8.5 | |
| RTU 5 | ACC | York | ZF072N08N4AAA1A | N1H1295489 | 6 | Install 9/11 |
| RTU 6 | ACC | York | ZR120N15P4RZZ50003 | N1D3662449 | 10 | |
| RTU 7 | ATC | York | Z33AN34A61AAAK0001 | N1E3682271 | 30 | |
| RTU 8 | ATC | York | Z34AN34A6AAAK0001 | N1E3682270 | 40 | |
| RTU 9 | ATC | York | ZR240N24K4RZZ10001 | N1C3582001 | 20 | |
| RTU 12 | ATC | York | ZR090N15P4RZZ50001 | N1D3662465 | 7.5 | |
| RTU 14 | ATC | York | ZR090N15P4RZZ50001 | N1D3662464 | 7.5 | |
| RTU 16 | ATC | York | ZR049N07P4RZZ50001A | N1D3662458 | 4 | |
| RTU 17 | ATC | York | ZR078N10P4RZZ60001A | N1D3662452 | 6.5 | |
| RTU 18 | ATC | York | ZR120N15P4RZZ5003A | N1D3662450 | 10 | |
| RTU 19 | ATC | York | ZR037N05P4RZZ50001A | N103662457 | 3 | |
| RTU 20 | ATC | York | ZR049N07P4RZZ50001A | N1D3662459 | 4 | |
| RTU 21 | ATC | York | ZR078N10P4RZZ60001A | N1D3662453 | 6.5 | |
| RTU 22 | ATC | York | D2NX036D09046NX | W1D3648315 | 3 | |

Split Systems

| Loc. | Make | Tonnage | Condensing Unit Model/Serial | Air Handler Model/ Serial |
|---|---|---|---|---|
| ACC | York | 7.5 | YC090C00A4AAA2/ N1A3386221 | NC090600B6AAA2/ N1B3488136 |
| ACC | York | 7.5 | YC090C00A4AAA2/ N1C3536691 | NC090C00B6AAA2/ N1A3386204 |
| ACC | York | 7.5 | YC090C00A4AAA2/ N1C3536692 | NC090C00B6AAA2/ N1A3447759 |
| **ACC** | **York** | **1.5** | **YCJD1854151/ AHE18B3XH21/** W1A3422740 | W1C3552376 |

| | | | | |
|---|---|---|---|---|
| ATC | York | 7.5 | YC090C00A4AAA2/ N1A3386222 | NC090C00B6AAA2/ N1A3424021 |
| ATC | York | 7.5 | YC090C00A4AAA2/ N1F2923632 | NC090C00B6AAA2/ N1A3411165 |
| ATC | York | 5 | YCJD6054454/ W1D3390839 | MX20DN21/ W1C3579983 |
| ATC | York | 5 | YCJD6054454/ W1B3390832 | MX20DN21/ W1C3579968 |
| ATC | York | 5 | YCJD6054453/ W1A3382020 | MX20DN21/ W1C3579974 |

**Stone Cottage 4901 Addison Circle Dr. – Installed 10/19/98**

| Make | Tonnage | Condensing Unit Model\Serial | Air Handler Model\Serial |
|---|---|---|---|
| Carrier | 5 | 38YCC060300\ 1098E02556 | FB4ANF060\0498A33158 |
| Carrier | 5 | 38YCC060300\ 1098E02550 | FB4ANF060\0198A06668 |

**Celestial Pump Station 5510 Celestial**
1 each Lennox model #10ACB24-9P condensing unit
1 each Goodman model #ARUF182416 air handler (installed 6/2008)
1 each York model #YCE36B21H condensing unit
1 each York model #AE36BX21 air handler

**Special Events Pavilion 4970 Addison Circle Dr. – Installed 10/2003**

| Make | Tonnage | Condensing Unit Model | AirHandler Model | Heating |
|---|---|---|---|---|
| Trane | 5 | TWA0060C3000A | TWE060P13 | 25kW electric |
| Trane | 4 | TWA0048C3000A | TWE048P13 | 15kW electric |
| Trane | 2.5 | TWA0030C3000A | TWE030P13 | 10kW electric |
| Trane | 2.5 | TWA0030A3000AB (installed 7/2008) | TWE030P13 | 10kW electric |

**Vitruvian Restrooms 3956 Vitruvian Way**
1 ea Samsung model MH080FXCA4A serial F328PAFC500006B condensing unit 3 Ton
2 ea Samsung model MH026FNCA serial F324PAKC600030K air handler unit
serial F324PAKC600171D air handler unit
serial F324PAKC600070N air handler unit

# PACKAGED UNITARY EQUIPMENT MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year**

## Annual Maintenance Tasks

**Refrigerant System**

- Visually check refrigerant circuit(s) for leaks
- Check superheat setting and adjust if necessary
- Check operation and refrigerant pressures

**Lubrication System**

- Check oil level in compressor(s) (if applicable)
- Check oil pressure per specifications (if applicable)
- Visually inspect oil lines for leaks
- Check crankcase heater

**Electrical Systems**

- Check condition of contacts for wear, pitting, etc.
- Check and calibrate operating controls
- Check and calibrate safety controls
- Check condenser fan motor(s) for proper operation
- Check/tighten all electrical panel terminals
- Check/tighten all motor terminals
- Check external interlocks and flow switches (if applicable)
- Inspect electrical components for indications of heat
- Check starter operation, voltage and current

**Operating Checks**

- Visually inspect condenser/evaporator coils for leaks and fin deterioration
- Check operation of condenser fan(s) and inspect blades
- Lubricate condenser/evaporator fan bearings (if applicable)
- Check condition and tension of fan belts (if applicable)
- Check condition of vibration eliminators
- Check damper operation, lubricate and adjust as required
- Inspect filters
- Check the sheaves and pulleys for wear and alignment

**Written Report**

- Provide to customer representative following each regular inspection or emergency call

## Operating Maintenance Tasks

- Adjust operating and safety controls. Record settings
- Check operation of control circuit
- Check operation of lubrication system including oil pressure and oil level
- Check operation of crankcase heater(s)
- Check operation of all motors and starters
- Visual inspection of condenser coil(s)
- Report to customer any uncorrected deficiencies noted.
- Inspect filters

## Heating Equipment Tasks

- Check and adjust burners
- Check and clean heat exchanger
- Check for gas leaks at unit
- Check vent pipe connection
- Check heat elements and sequencers
- Check heat limit controls
- Run cycle to burn off dust from elements or exchanger

## Included Services

☒ Wash condenser coils **2 times** per year
☒ Provide material and labor to replace filters 4 times per year (Pleated merv 10 filters)
☒ Change belt where require once per year.
☒ Blow out and or rinse out condensate lines quarterly

# SPLIT SYSTEM EQUIPMENT MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year**

## Annual Maintenance Tasks

**Refrigerant System**

- Visually check refrigerant circuit(s) for leaks
- Check superheat setting and adjust if necessary
- Check operation and refrigerant pressures

**Lubrication System**

- Check oil level in compressor(s) (if applicable)
- Check oil pressure per specifications (if applicable)
- Visually inspect oil lines for leaks
- Check crankcase heater

**Electrical Systems**

- Check condition of contacts for wear, pitting, etc.
- Check and calibrate operating controls
- Check and calibrate safety controls
- Check condenser fan motor(s) for proper operation
- Check/tighten all electrical panel terminals
- Check/tighten all motor terminals
- Check external interlocks and flow switches (if applicable)
- Inspect electrical components for indications of heat
- Check starter operation, voltage and current

**Operating Checks**

- Visually inspect condenser/evaporator coils for leaks and fin deterioration
- Check operation of condenser fan(s) and inspect blades
- Lubricate condenser/evaporator fan bearings (if applicable)
- Check condition and tension of fan belts (if applicable)
- Check condition of vibration eliminators
- Check damper operation, lubricate and adjust as required
- Inspect filters
- Check the sheaves and pulleys for wear and alignment

**Written Report**

- Provide to customer representative following each regular inspection or emergency call

## Operating Maintenance Tasks

- Adjust operating and safety controls. Record settings
- Check operation of control circuit
- Check operation of lubrication system including oil pressure and oil level
- Check operation of crankcase heater(s)
- Check operation of all motors and starters
- Visual inspection of condenser coil(s)
- Report to customer any uncorrected deficiencies noted.
- Inspect filters

## Heating Equipment Tasks

- Check and adjust burners
- Check and clean heat exchanger
- Check for gas leaks at unit
- Check vent pipe connection
- Check heat elements and sequencers
- Check heat limit controls
- Run cycle to burn off dust from elements or exchanger

## Included Services

☒ Wash condenser coils **2 times** per year.
☒ Provide material and labor to replace filters 4 times per year. (Pleated merv 10 filters)
☒ Change belts once per year were necessary.
☒ Blow out and or rinse out condensate lines quarterly

# ROTARY CHILLER MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year**

## Annual Maintenance Tasks

**Refrigerant System**

- Visually check refrigerant circuits for leaks
- Inspect refrigerant filter
- Log and review operating conditions
- Leak check relief valves and refrigerant vent piping
- Inspect refrigerant sight glasses for cracks and leaks
- Check system superheat and sub-cooling

**Electrical Systems**

- Inspect condition of contacts for wear, pitting, etc.
- Inspect/tighten all electrical connections
- Inspect electrical components for indications of heat
- Check operating and safety controls
- Inspect/tighten motor leads

## Operating Checks

- Check start operation and record voltage and current
- Inspect operating and safety controls
- Inspect operation of condenser fans (if applicable)
- Check condenser fans for proper blade to shroud clearance (if applicable)
- Inspect operation of lubrication system.
- Inspect all piping for leaks or damage
- Check set point values in microprocessor
- Inspect condenser coils for buildup or damage

## Written Report

- Provide to customer following each regular inspection or emergency call
- Review all operating parameters with customer

## Operating Maintenance Tasks

- Inspect refrigerant filter temperature drop at full load conditions
- Check and record oil filter pressure drop
- Inspect operation of loading slide valve
- Inspect operating and safety controls
- Inspect and calibrate temperature controller
- Inspection operation of lubrication system
- Inspect operation of motor starter
- Inspect evaporator and condenser pressures
- Inspect unit for proper refrigerant charge
- Inspect for proper oil level
- Check operation of condenser fans (if applicable)
- Review operating conditions with customer
- Inspect operation of lubrication system
- Check oil level
- Inspect oil heater control operation

## Included Services

☒ Brush condenser tubes during annual inspection.
☒ Oil sample and analysis for wear metals, acid content and moisture to be taken 1 time per year.
☒ Meg compressor motors.
☒ Replace oil filters during annual inspection
☒ **Water treatment testing on chilled, condenser and boiler water loop.**

# CHILL WATER AIR HANDLING UNIT MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year.**

## Annual Maintenance Tasks

- Inspect coils and make recommendations as needed.
- Inspect drain pan and drain line.
- Inspect blower wheel and retaining bolts.
- Inspect pulleys and sheaves.
- Inspect/adjust belt alignment and condition.
- Lubricate shaft and motor bearings as required.
- Inspect all bearing and motor retaining bolts.
- Record motor operating conditions.
- Inspect/tighten all control and power wiring.
- Remove fan belts and spin blower wheel and let coast to a stand still for static unbalance test.
- Inspect all duct connections and door seals.
- Inspect flex connections for wear and leaks.
- Inspect unit for unusual noise or vibration.
- Inspect zone isolation dampers and linkages for proper movement. Adjust linkages as needed.
- Inspect damper operators for proper operation
- Inspect spring isolators and adjust as needed.
- Inspect lubricate lines and connections.

## Operating Maintenance Tasks

- Inspect coils for air flow obstructions.
- Lubricate shaft and motor bearings as required.
- Inspect all bearing and motor retaining bolts.
- Record motor operating voltage and amperage.
- Inspect/tighten electrical connections.
- Inspect unit for unusual noise or vibration.
- Inspect/adjust belt alignment or tension.
- Inspect filters and report condition to the customer.

## Included Services

☒ Provide labor and material to replace filters and media, or clean permanent filter 6 time(s) per year. Athletic Club only. (Pleated merv 10 filters)
☒ Change belts on annual inspection.
☒ Blow out and or rinse out condensate lines quarterly

# PUMP MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year**

## Operating Maintenance Tasks

- Lubricate pump bearings per manufacturer's recommendations
- Lubricate motor bearings per manufacturer's recommendations
- Check suction and discharge pressures, if possible
- Visually inspect packing or mechanical seals
- Check motor voltage and amperage
- Check motor operating conditions
- Inspect electrical connections and conductors
- Check operation of isolation valves
- Check pump starter

## Included Services

☒ Pull condenser water strainer during annual inspection.

# WATER TREATMENT MAINTENANCE- Athletic Center

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**12 Inspections per year**

## Operating Maintenance Tasks

- Conduct a survey of equipment prior to startup and recommend the correct chemicals.
- Provide product safety information on all chemical products used in the system.
- Provide all products required for water treatment for the duration of this agreement.
- Make all necessary adjustments to chemical feed equipment in accordance with ongoing laboratory recommendations.
- Provide on-site water testing and supply a field test report for the system.
- Maintain or replace customer owned chemical feed equipment at an additional expense to customer.
- If TDIndustries determines that repairs to the system are required to minimize loss of water treatment and water, customer will cause repairs to be made at their expense.
- These prices are established on a good clean leak free system. The customer will be financially responsible for replacing chemical due to water loss causing chemical loss that exceeds 25% of the initial chemical charge.
- Should government restrictions be placed upon use of chemical treatment, alternate products will be substituted at customer's expense.

# BOILER MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year.**

## Annual Maintenance Tasks

- Inspect safety and operating controls
- Inspect the low water cutout safety
- Inspect condensate drain
- Inspect main burner assembly
- Inspect condition of spark electrode and flame rod
- Lubricate blower motor as required
- Verify operation of makeup water system
- Inspect condition of flues and report
- Inspect refractory and firebrick for defects and report
- Clean expansion tank sight glass
- Inspect all electrical connections for tightness
- Verify boiler room supply vents are free from obstructions
- Inspect wire insulation for signs of overheating, burns, etc.
- Verify accuracy of pressure gauges

## Operating Maintenance Tasks

- Inspect the boiler for gasket leaks
- Inspect the low water cutoff and feed control (s)
- Inspect the pressure relief valves
- Inspect all operating controls for proper operation
- Inspect and clean blower, if required

## Included Services

☒ Remove header and inspect tube condition once per year (if required)

☒ Brush clean boiler tubes once per year (if required)

☒ Perform combustion analysis once per year

# FAN POWERED BOX AND VAV MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**2 Inspections per year**

## Annual Maintenance Tasks

- Inspect box for detectable maintenance items
- Inspect blower wheel and retaining bolts
- Inspect pulleys and sheaves
- Inspect/adjust belt alignment and condition
- Lubricate shaft and motor bearings as required
- Inspect all bearing and motor retaining bolts
- Record motor operating conditions
- Inspect/tighten all control and power wiring
- Inspect all duct connections and door seals
- Inspect flex connections for wear and leaks
- Inspect box for unusual noise or vibration
- Inspect dampers and linkages for proper movement, adjust linkages as needed.
- Inspect damper operators for proper operation
- Inspect spring isolators and adjust as needed
- Inspect pneumatic system for leaks and cracks

## Operating Maintenance Tasks

- Inspect coils for air flow obstructions
- Lubricate shaft and motor bearings as required
- Inspect all bearing and motor retaining bolts
- Record motor operating voltage and amperage
- Inspect/tighten electrical connections
- Inspect box for unusual noise or vibration
- Inspect/adjust belt alignment or tension
- Inspect filters and report condition to the customer

# SPLIT SYSTEM EQUIPMENT MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year**

## Annual Maintenance Tasks

**Refrigerant System**

- Visually check refrigerant circuit(s) for leaks
- Check superheat setting and adjust if necessary
- Check operation and refrigerant pressures

**Lubrication System**

- Check oil level in compressor(s) (if applicable)
- Check oil pressure per specifications (if applicable)
- Visually inspect oil lines for leaks
- Check crankcase heater

**Electrical Systems**

- Check condition of contacts for wear, pitting, etc.
- Check and calibrate operating controls
- Check and calibrate safety controls
- Check condenser fan motor(s) for proper operation
- Check/tighten all electrical panel terminals
- Check/tighten all motor terminals
- Check external interlocks and flow switches (if applicable)
- Inspect electrical components for indications of heat
- Check starter operation, voltage and current

**Operating Checks**

- Visually inspect condenser/evaporator coils for leaks and fin deterioration
- Check operation of condenser fan(s) and inspect blades
- Lubricate condenser/evaporator fan bearings (if applicable)
- Check condition and tension of fan belts (if applicable)
- Check condition of vibration eliminators
- Check damper operation, lubricate and adjust as required
- Inspect filters
- Check the sheaves and pulleys for wear and alignment

**Written Report**

- Provide to customer representative following each regular inspection or emergency call

## Operating Maintenance Tasks

- Adjust operating and safety controls. Record settings
- Check operation of control circuit
- Check operation of lubrication system including oil pressure and oil level
- Check operation of crankcase heater(s)
- Check operation of all motors and starters
- Visual inspection of condenser coil(s)
- Report to customer any uncorrected deficiencies noted.
- Inspect filters

## Heating Equipment Tasks

- Check and adjust burners
- Check and clean heat exchanger
- Check for gas leaks at unit
- Check vent pipe connection
- Check heat elements and sequencers
- Check heat limit controls
- Run cycle to burn off dust from elements or exchanger

## Included Services

☒ Wash condenser coils **2** times per year
☒ Provide material and labor to replace filters 4 times per year. (Pleated merv 10 filters)
☒ Blow out and or rinse out condensate lines quarterly

# COOLING TOWER MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**4 Inspections per year.**

## Annual Maintenance Tasks

- Clean float valve assembly and adjust for proper operation
- Check and clean bleed off line and overflow
- Check sump heaters and thermostats for calibration and operation
- Check and adjust fan belts (if applicable)
- Check condition of drive pulleys (if applicable)
- Check oil level in gearbox (if applicable)
- Check driveshaft couplings (if applicable)
- Lubricate fan and motor bearings per manufacturer's recommendation
- Check amperage on motors
- Inspect electrical connections, contactors, relays
- Check and calibrate operating and safety controls
- Check and adjust condenser water temperature regulator system
- Check and adjust bypass valve

## Operating Maintenance Tasks

- Inspect fan, motor and belts
- Check sump strainer, bleed, and overflow
- Check operating conditions, adjust as required

## Included Services

☒ Clean tower strainers once per year
☒ Clean water sump basin and check condition once per year
☒ Change gearbox oil once per year.

# UNIT HEATER/DUCT HEATER MAINTENANCE

**SCHEDULE:**

**This schedule describes the basic planned maintenance procedures that will be performed by TDIndustries, Inc. These procedures comply with all EPA regulations regarding maintenance and repair of air conditioning/heating equipment and systems.**

**2 Inspections per year.**

## Annual Maintenance Tasks

- Lubricate motor bearings (if applicable)
- Check bearing and motor mounting
- Check motor operating voltage and amperage
- Check heat exchanger/elements for proper operation.
- Rotate the fan and check for obstructions in the fan housing
- Check heat sequencers on electric units
- Check gas pressure on gas fired units
- Check heat exchanger for cracks on gas fired units.

## Operating Maintenance Tasks

- Check unit for unusual noise or vibration
- Check heat sequencing or gas combustion.
- Check motor operating voltage and amperage
- Inspect the control and power wiring for secure connections and insulation.