



Proposal

| Phone: 512.929.7090 | 1720 Royston Lane, Round Rock, TX 78664 | TACLA0020760C | M-18971 | TECL 29725 |
| Phone: 210.233.8401 | 10604 Sentinel St., San Antonio, TX 78217 | TACLA21315C | M-18971 | TECL 29725 |

Date: 10-10-16

Proposal Number: 2016-16975

Customer: City of San Antonio Aviation **Attention:** Pat Patton

Location: Airport Terminal 9800 Airport Blvd. San Antonio, Texas 78216

Email: Pat.patton@sanantonio.gov

Phone: 210-207-3493

Project Name: Replacement of 7 Chilled water air handlers serving various portions of the main terminal including the food court.

Scope of Work: Remove air handlers 49B, 65, 70, 69, 63, 64 and 5 from their current location and install new Temptrol Modular air handlers. To be furnished with the new air handlers will be new FDI piping packages to be listed below along with new Variable Frequency drives (2) per air handler. This project will require removing these units and placing the new one's back in service on at a time to prevent the loss of service to the terminal during normal business hours.

Includes:

ITEM A – Temptrol Indoor Air Handling Units

Temptrol Model QX indoor air handling unit designed for 460V/3Ph/60HZ power and complete as follows:

- Double wall construction
- 2" Temptrol QX Indoor Construction w/closed cell foam insulation
- 16 Ga Galvanized exterior panels
- 20 Ga Galvanized interior panels
- Direct Drive Plenum Fans
- 304 Stainless Steel drain pan
- Chilled Water Cooling Coil; Copper tubes, Aluminum fins, stainless steel casing
- Hot Water Heating Coil; Copper tubes, Aluminum fins, galvanized steel casing
- Access Doors
- 4" MERV 11 Air Filters
- Temptrol Dampers (where scheduled)

ITEM B – ABB Variable Frequency Drives

ABB Model ACH550 variable frequency drives designed for 460V/3Ph/60HZ power and complete as follows:

- Microprocessor based Pulse Width Modulated (PWM) adjustable speed AC drive
- IGBT power switching technology
- NEMA-1 rated enclosure
- Full graphic multifunction control panel with LCD display in plain English
- 5% input line impedance for harmonic mitigation
- E-Clipse Bypass
- Disconnect Switch
- Twenty-Four (24) month parts and labor warranty

Proposal is subject to and conditioned upon approval of Customer's credit by Mechanical Technical Services, Inc. Quote may be withdrawn by us if not accepted within 30 days. Any alterations or deviation from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. Unless specified, payment will be made within 30 days after completion of service. Regulated by the Texas Department of Licensing and Regulation, PO Box 12157, Austin, TX. 78711 1.800.803.9202, 512.463.6599 Licensed by the Texas State Board of Plumbing Examiners, License #M-18971, Curtis Novinger, RMP. Correspondence with this Board should be directed to PO Box 4200, Austin, TX 78767. 512.458.2145



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- Factory Certified Start-Up Supervision

<u>Drive HP</u>	<u>Qty</u>	<u>TAG</u>
1.5-HP	1	AHU-69
3-HP	1	AHU-63
5-HP	2	AHU-64, 65
7.5-HP	1	AHU-49B
10-HP	2	AHU-5, 70

ITEM C – FDI Piping Packages

Flow Design 2-Way Automatic Balancing Valve and Strainer Packages complete as follows:

- Model AC Automatic Balancing Valve complete with Dual P/T Ports, Shut-off Valve, and Union
- Model YC Wye Strainer complete with Ball Valve, Union, P/T Port, and Drain Valve with Retainer Strap
- Model UP Union with P/T Port and Manual Air Vent

Flow Design Automatic Balancing Valve & Strainer Combos complete as follows:

- Model WB Auto Balancing Valve complete with Dual P/T Ports & Butterfly Valve
- Model CW Strainer Complete with Blow Down Valve and Butterfly Valve

Installation inclusions;

- New 3" WC sheet metal duct to meet SMACNA guidelines, duct wrap and board as required in each area to match existing design, steel and copper piping for chilled and hot water connections to existing piping, providing unions for removal of valve packages for maintenance when required, sheer vibration isolation on housekeeping pads, rigging tools and equipment storage and disposal
- Providing a licensed electrician to provide new electrical conduit and wiring from existing disconnects and VFD to the equipment
- Providing a certified test and balance company to perform pressure test of new modular air handlers along with RPM set points to match existing test and balance reports provided by maintenance staff
- Labor to complete the above scope of work during normal business hours with badged approved superintendent during the entire project

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Exclusions: Controls integration to new VFD, control valves and air handlers, providing any new openings in existing mechanical rooms to provide code required access to equipment where currently does not exist, certified test and balance reports on existing air devices throughout the terminal only air handler pressure test and verification of original design, asbestos abatement, code violations not related to above scope of work, electrical panel upgrades, overtime and sales taxes

Quoted Price **\$520,000.00 (excludes tax)**

Prepared by:

Robert Domin

Robert Domin

Email: robert.domin@csusa.us

512.512-929-7090(O) | 512.851-7153 (m) | 512.873.7529 (f)

Acceptance of Proposal:
The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified.

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