

June 15, 2018

City Of Rochelle
420 N 6th St
Rochelle, IL 61068
Att: Ms. Sue Messer

UPDATED: Old Building / HVAC Controls and Energy Improvements

Dear Sue:

Mechanical Inc. appreciates the opportunity in providing you our proposed upgrades to the existing buildings HVAC equipment and controls. This proposal has been updated on pricing and splitting the scope into phases for your convenience. The defined scope still remains consistent to our content in our original proposal dated September 16, 2013 on our building assessment. It has now been five additional years since that assessment and there are some added components we now need to address. The condensing units associated with the Air Handling Units (AHUs) are past ASHRAE equipment life standards and are still using R22 refrigerant which is no longer used and is very costly to maintain and will soon be an EPA issue. Since we are still looking at this upgrade from an energy perspective, these units are not efficient with also declining copper rigidity which will start creating refrigerant leaks. We are proposing to overhaul the AHUs as well as replace the condensing units on both AHUS to create a more reliable and energy efficient solution as well as adding DDC controls to them so it all can be operated through the same platform that is currently on the newer section. AHU-1 does have a ruptured heating coil that will need to be replaced, so we should do this at the same time we are rehabbing that AHU.

As in our original assessment for energy savings and comfort control, we are still advocating modifying the existing pneumatic reheats that are on the AHU systems with two options. One option would be to replace the pneumatic thermostats with ones that are now have an option of being wireless. As of now, you do not have any DDC control of these and thermostats could be left in full heat position with no one in the room. The wireless scenario would at least give you feedback of the actual temperature, control the set-point, and have a schedule on them which would help save energy from the Boiler to the AHUs energy consumption. This option is the least costly as compared to a VAV system as we discussed back in 2013. We have also updated this pricing if this is something you may still want to consider. Unlike in the newer section with the "voting system", the old section would become truly a VAV controlled system which would benefit comfort control, but also huge energy savings by reducing AHU fan energy as well as compressor and boiler consumption by reducing based on actual demand versus the system running all the time fully on. Included in this upgrade would be the cleaning of the hot water coils in the system and an air balance of both which we are sure has not been addressed since original installation.

The following is our detailed scope of work for each discipline.

- Note that since it is not known if you will do the whole project at one time or individual scopes, a discount price will be given below for the AHUs / Boiler Controls if we can do at the same time.

Typical AHU Scope of Work - \$69,795.00 per each AHU

- Furnish Mechanical Modification and Controls for AHUs – (Typical of each)
 - Furnish / Install all sensors required to meet control requirements
 - Supply Air Temp
 - Return Air Temp
 - Mixed Air Temp
 - Return Air Humidity
 - Freeze-stat
 - Duct Static Pressure
 - Filter status
 - Building Pressure
 - Furnish Control of existing pneumatic HW Valve
 - Furnish / Install Electronic Actuators for Dampers
 - Furnish / Install new high efficiency VFD rated motor
 - Furnish / Install new Variable Speed Drive for AHU
 - Furnish / Install new Sheaves, Pulleys & Belts
 - Furnish / Install new Refrigerant Coil in existing AHU
 - Furnish / Install all new piping specialties for cooling coil
- Furnish / Install New Condensing Unit for DX Cooling with Communication to BAS
 - Furnish Crane
 - Furnish Removal from Site and refrigerant recovery of R22 for existing condensing unit
 - Set New Condensing Unit
 - Furnish / Install New refrigerant Piping
 - Furnish new Isolation Rails
 - Modify Electrical Connections as required
- Furnish all mechanical system startup / BAS programming / Graphics for full functional system
- Furnish specialized control sequences as required
- Furnish Drawings / Engineering Documents / As-built drawings

AHU -1 Heating Coil Replacement : \$ 9,925.00

- Furnish / Install New Hot Water Coil
 - Drain Existing Heating Coil
 - Remove Old Coil
 - Install New Coil
 - Bleed air out of new coil\
 - Check operation

Furnish DDC To Existing Boiler: \$ 19,588.00

- Furnish / Install New Control System for Boiler
- Furnish / Control Wiring of all HW Pumps
- Start / Stop / Command / Alarm
- Furnish / Install HW System Sensors – Supply & Return
- Furnish / Install control of (5) HW Building Circ. Pumps
- Combustion Intake Fans / Exhaust Fans
- Furnish / Control of EF's
- Furnish all graphics and programming for full functional system
- Furnish specialized control sequences as required
- Furnish Drawings / Engineering Documents / As-built drawings

- ❖ Note: This does not include upgrading the burner assembly as previously quoted as City of Rochelle has now decided to omit that scope



Replace Existing Pneumatic Stats with Pneumatic Wireless Stats - \$46, 237.00

- Pneumatic Wireless Stat System (Typical of 14 Duct Reheat Zones & 14 Convectector Zones)
 - Remove Existing Pneumatic Stat
 - Furnish / Install New Wireless Pneumatic Stat
 - Furnish / Install (1) Wireless Router Per Floor (2) Required
 - Furnish / Install (1) BAS Interface
- Furnish all graphics and programming for full functional system

Duct Reheat Conversion to VAV Boxes and Perimeter Control - \$76, 365.00

- VAV boxes Conversions w/ Reheat (Typical of 14 Duct Reheat Zones)
 - Furnish / Install Damper Conversion boxes into duct work
 - Furnish Cleaning of Reheat Coils in duct work
 - Furnish / Install Controllers on damper conversion boxes
 - Furnish / Install Supply Air Temp Sensors
 - Furnish / Install VAV Space Sensors For VAVs
 - Furnish / Install Space Sensors for (14) Perimeter Reheat Zones
 - Provide control of **existing (28) reheat coil valves**
 - (14) on Reheat Coils in Ductwork
 - (14) Perimeter Zones
 - ❖ Note: We are not replacing the existing pneumatic valves due to Asbestos issues. We will utilize what is there now within out disturbing the area or pneumatics for them.
 - Furnish / Install Communication buss
 - Furnish / Install 24vac power to VAV controllers
- Furnish all graphics and programming for full functional system
- Furnish Air Balance of AHU and VAVs.
- Note: Assumes the AHU project has been completed as the DDC controllers for each AHU will tie into the BAS from that project.

Option 1 - TOTAL PROJECT PRICE (Discounted) _____ **\$ 162, 000.00**

- NOTE: This is for doing **Both** AHUs, AHU-1 Heating Coil & Boiler Controls

Option 2 - TOTAL PROJECT PRICE (Discounted) _____ **\$ 206, 776.00**

- NOTE: This is for doing **Both** AHUs, AHU-1 Heating Coil , Boiler Controls & Pneumatic Wireless Stats

Option 3 - TOTAL PROJECT PRICE (Discounted) _____ **\$ 234, 595.00**

- NOTE: This is for doing **Both** AHUs, AHU-1 Heating Coil , Boiler Controls & VAV Conversion

Exclusions / Clarifications :

- Excluded are overtime and premium time. We define straight time as 6:00AM to 2:30PM, Monday through Friday.
- Excluded are **taxes**, any allowances, bid bonds, fees or permits.
- Excluded are cutting, roof penetrations, patching, painting.
- Excludes all Certified Fire-stopping
- Excludes any troubleshooting / replacement of Hot Water Valves leaking or dampers found defective. A separate price will be provided at the time
- We assume for this project that the Boiler System is good working order.
- Assumes accessibility to areas during working hours. We acknowledge critical areas we must work in and compensate them within the facility such as the 911 and Jail areas.
- The new AHUs and VAVs DDC will be as of the same system currently installed within the newer section.
- Excludes Any Abatement or containment thereof. If found in the systems we have encompassed we will alert the City of Rochelle.

Please review and if there are questions or if additional information is needed, feel free to contact me.

Respectfully,



Jay Pitcher ME, CEM
Controls Division Manager
Advanced Automation Solutions Group – Helm Group

Customer Signature

Customer acknowledges all terms and conditions within the document

Date



TERMS & CONDITIONS

No other terms, including those on Applicant’s Purchase Order, may add to, modify, supersede or otherwise alter the TERMS contained herein, without the express written approval by an authorized of representative of Mechanical Inc. All other terms are hereby rejected. By allowing Mechanical Inc., to complete work described herein, Customer hereby agrees to the following terms and conditions.

Customer agrees to promptly notify us of any unusual operating conditions of the subject equipment or problems with workmanship in regard to work that was performed as defined by the proposal attached with this form. **Customer understands that Advanced Automation Solutions Group of Mechanical Inc. has a 24 hour, 7 day a week answering service to respond to any issues.** Customer further understands and agrees that if customer fails to so notify AAS Group / Mechanical Inc. in a timely manner, of any problems or unusual operating conditions of the subject equipment or problems with workmanship, then AAS Group / Mechanical Inc., shall not be liable for any and all claims, losses, costs, and damages, including but not limited to attorney's fees and other such damages to the extent caused by the customer’s failure to provide the required notification. During the performance of any work under this agreement, The AAS Group / Mechanical Inc. agrees to carry commercial general liability insurance and worker’s compensation insurance in the amount required by the Customer or contract as required.

Damages of any type relating to the installed system or its operation within a new or existing facilities; even if by our negligence, will be limited by to the total amount of funds received for the total of this contract amount.

AAS Group / Mechanical Inc. is not responsible for viruses and/or network issues that may arise from any/all field laptops that connect to a customer’s LAN, WAN, or other computer network. Problems relating to abuse, vandalism, power failure or power quality issues, misuse, fire, lightning, flood, or other Acts of God or acts of third parties other than AAS Group / Mechanical Inc, or its employers, subcontractors or agents are not covered. Repairs necessitated by these items will be billed to the customer at our normal rates.

The AAS Group / Mechanical Inc. will not be responsible for any problems, costs, liabilities, damages, etc. caused by another firm, company or individual not directly employed or authorized by AAS Group / Mechanical Inc. who tampers with, changes, modifies or services any part of the system referenced by this contract.

PAYMENT TERMS

Payment terms include monthly progress billings and are due on a net thirty (60) days basis. Work described by this proposal could be suspended if monthly progress payments are not made on a timely basis. Should this account be referred to a collection agency or attorney for failure to pay in accordance with the terms and conditions of this agreement, the customer agrees to all collection costs, reasonable attorney fees, and 18% interest annually or 1.50% per month until date of full payment. All warranty coverage listed herein will be suspended until such time as any and all past due payments are received by Mechanical Inc.

System’s operational compliance with the specifications will be demonstrated to the customer or customer’s representative at “substantial completion” of this project. This compliance may not be passed to the customer in its entirety until final payment is received by Mechanical Inc.

I/we have read and agree to the terms and conditions as listed above.

Customer or Authorized Agent: _____
Printed Name

Signature

Date: _____