

PROPOSAL

System Wide Air Handling System Preventative Maintenance and Control Sequence Modifications for Operation During the Pandemic

PREPARED BY

Siemens Industry, Inc.

PREPARED FOR

HENRICO COUNTY PUBLIC SCHOOLS

DELIVERED ON

July 16, 2020



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Contact Information

Proposal #:	5031171
Date:	July 16, 2020

Sales Executive:	Carl L. Cabaniss
Branch Address:	5106 Glen Alden Dr. Richmond, VA, 23231
Telephone:	(804)640-4466
Email Address:	carl.cabaniss@siemens.com

Customer Contact:	Charlie Newman
Customer:	HENRICO COUNTY PUBLIC SCHOOLS
Address:	406 DABBS HOUSE RD
	RICHMOND VA 23223

Project Summary

Siemens is providing this proposal for remote preventative maintenance, and control sequence modifications for Air Handling Units and Makeup Air Units across all facilities at Henrico County Public Schools. The Association of Heating Refrigeration and Air Conditioning Engineers (aka ASHRAE) has made general recommendations for modified HVAC operations during the Covid-19 pandemic. This work will be executed in order to meet these recommendations across 374 (qty) individual pieces of air handling equipment:

- 1) Reduce/eliminate the use of heat wheels to prevent cross-contamination of supply air streams
- 2) Implement Outdoor Air purge cycles where applicable, 2 hours pre and post-occupancy
- 3) Increase outdoor air cfm levels where reasonable
- 4) Eliminate the use of Demand Control Ventilation programming, which may drive reduced outdoor air cfm levels
- 5) Perform any work necessary to ensure that HVAC systems are operation per their original design intent

Scope of Work

Siemens is providing this quote for the following scope of work. This work will be executed across 374 individual pieces of equipment, including air handling units, heat recovery units, package rooftop units, makeup air units, dedicated outdoor air units, and other types. This equipment list is based on the request submitted from HCPS personnel on July 16, 2020.

1. Siemens team will develop program tools, templates, and methods for executing this project in a consistent manner across all equipment. This will include measures to:
 - Document and report existing unit operation and deficiencies (if applicable)
 - Perform and document equipment modification, and corrective actions performed on each unit
 - Track ongoing operation to ensure all measures implemented remain in place; Put a plan in place for any future modifications which may be needed.
2. Siemens will perform a remote Preventative Maintenance check on each piece of equipment. This will include recommended tasks to verify proper equipment operation and functionality. Any items which are not operating properly may be corrected, or will be brought to the owners attention.
3. Siemens will perform any **corrective actions** which may be executed remotely. Siemens will document and report these items back to the customer.
4. Siemens will execute **control system modifications** as recommended during the pandemic. These include items listed in the Project Summary, and other control sequence modifications when may be recommended
5. Siemens will setup trending, reporting, and alarming as recommended to ensure all implemented measures remain in place as intended through the pandemic
6. Siemens will provide a deficiency list, and list of additional recommendations which may be implemented to further improve occupant safety and air quality during the pandemic.

Execution Timeline - Siemens will work to expedite project execution in order to get as much work done as possible before schools are occupied. We will also work with HCPS personnel to prioritize this work as to impact the highest priority units first. Siemens intends to use local management, along with local service technicians, remote service technicians out of the Digital Service Center, and available service technicians out of the Virginia Beach branch office.

The target date of full completion is 10 weeks from the date a purchase order is received.

Exclusions

The following exclusions apply:

- 1) Hardware needed to repair or replace any components
- 2) Overtime labor differential (All work during normal hours)
- 3) Any items not explicitly included in the scope of work

Sell Price and Breakout

Total Quote Price	\$171,500.00
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SIEMENS				
Project	Siemens Quote - Air Handling Equipment PM & Sequence Modifications			
Equipment Quantity:	305 Individual Units			
Date	July 16, 2020			
Siemens Material at List-Less-50%				\$ -
Outside Material	Wire, Fittings, and misc.			\$ -
Freight				\$ -
Warranty				\$ -
Siemens Labor	Service Project Manager	\$ 160.00	64	\$ 10,240.00
	Automation Engineer	\$ 160.00	80	\$ 12,800.00
	Service Energy Engineer	\$ 200.00	200	\$ 40,000.00
	Service Specialist	\$ 145.00	748	\$ 108,460.00
	Mechanic	\$ 120.00	0	\$ -
Total Estimate				\$ 171,500.00
Labor				\$ 171,500.00
Material, Freight, Warranty				\$ -



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Terms & Conditions

Terms and conditions are found in the Master Service Agreement Addendum between Henrico County Public Schools and Siemens Industry, Inc. dated November 20, 2016.

Signature Page

Proposed by:

Siemens Industry, Inc.

Company

Carl L. Cabaniss

Name

5031171

Proposal #

\$171,500.00

Proposal Amount

July 16, 2020

Date

Accepted by:

HENRICO COUNTY PUBLIC SCHOOLS

Company

Name (Printed)

Signature

Title

Date

Purchase Order #