PROPOSAL

July 14, 2020

Josh Arneson
Richmond Town Center Building
203 Bridge Street
Richmond, VT 05477

Subject: **Richmond Town Library – HVAC Upgrade**
Richmond, VT

Josh:

VHV Company is pleased to offer this proposal for the design and installation of new HVAC systems for the Richmond Town Library in Richmond, VT. Mechanical RFP Package, dated 6/5/2020, Preliminary Scope of Work Package, dated 6/15/2020, Addendums 1 and 2, and a site walk-through on 6/24/2020, forms the basis of our proposal.

Assumptions & Clarifications

- All work will be performed during normal work hours (7:00 am to 3:30 pm, M-F).
- This project is considered tax exempt.
- All fire alarm wiring, equipment, and controls provided and installed by others.

Preconstruction Services

- Professional Design Services – VHV will provide design services for the HVAC systems in this project where required. Our design methods follow industry standards, applicable codes and are supervised by a VT registered Professional Engineer.
- Drawing Package - Drawings are prepared using Revit 2019 Software. Progress drawings will be available for review and distribution through the design phase. Upon request, VT PE stamped construction documents will be provided for permit submission.
- Submittals & Shop Drawings – VHV will obtain and submit manufacturer's shop drawings for major equipment shown in the equipment schedules included in the drawing package.

Scope of Work:

1. Remove the existing hydronic boiler located in the 3rd floor mechanical space and all associated hydronic piping and heating elements, including baseboard, radiant floor manifolds, and unit heater. Radiant floor tubing will be abandoned in-place.
2. Remove the existing ductwork located in the basement.
3. Remove the two existing sump pumps and associated discharge piping. These will be replaced.

4. Furnish and install one (1) 5-ton Trane split system heat pump. (Note, 3-phase power is required). The air-cooled heat pump will be mounted on a 24" stand placed on concrete equipment pads (equipment pad by others) on the north side of the building.
5. Furnish and install one (1) Trane ducted fan-coil unit (FCU), located in the basement, with DX cooling, natural gas heating, and MERV 13 filtration.
6. Furnish and install Type ACR copper piping with brazed and/or mechanical field joints for all refrigeration piping associated with the system noted in Items 4 and 5.
7. Furnish and install one (1) 300 CFM Renewaire energy recovery unit (ERU) to pre-condition the ventilation air entering the building. The ERU will be located in the basement and will operate by a time clock.
8. Furnish and install low-pressure galvanized supply and return ductwork from the FCU, noted above, to floor supply and return terminals.
9. Furnish and install low-pressure galvanized ductwork to/from the ERU, noted above, to the return plenum of the above noted FCU. Two (2) outside/exhaust air hoods will be incorporated into the system and will be installed in the north wall.
10. Insulate all ductwork in accordance with the current Vermont Commercial Building Energy Standard (VT CBES).
11. Furnish and install equipment condensate from the FCU to the existing sump pit. Piping material is PVC.
12. Furnish and install electric baseboard in the 1st floor offices, the 2nd floor bathrooms, and the stairwell on the 1st floor.
13. Furnish and install an electric cabinet unit heater in the entry.
14. Furnish and install single zone, stand-alone programmable WiFi, thermostatic controls.
15. Provide air balance to within 10% of design values utilizing an independent balance contractor. NEBB and AABC certification is excluded.
16. Furnish and install a new duplex elevator sump pump with oil control, replacing the one that was removed.
17. Furnish and install a new duplex basement dewatering sump pump, replacing the one that was removed.
18. Furnish and install new individual discharge waste piping from each sump pump to the existing indirect daylighted waste at the east end of the building.
19. Provide all necessary electrical power services for the equipment noted in this proposal.

Project Closeout

- Record Drawings – Where applicable, design documents will be updated to reflect actual installation. Record drawings will be submitted electronically, in PDF and Revit formats.
- O&M Manuals – Installation, Operation and Maintenance manuals of all installed equipment will be provided in pdf and hard copy format. Service start-up reports of all installed equipment will be provided with the manuals.

Total Base Price: $114,342.00 (One Hundred Fourteen Thousand, Three Hundred Forty-Two Dollars)

Exclusions:

- Sales tax
- Bond
- Prevailing Wages/Davis Bacon
- Energy modeling and 3rd party commissioning
- Painting of piping and ductwork
- Excavation, backfill and compaction
- Concrete work of any kind (including equipment pads)
- Concrete saw cutting, trenching, and backfill
- Architectural cutting, patching, and painting
- Fire stopping and caulking
- Exterior wall penetrations
- Relocating existing services found to be in interference with new systems
- Fire protection (sprinklers, detectors, etc)
- Startup, commissioning, and owner instruction for equipment purchased, or furnished, by others
- Seismic design, restraints, and seismic gas shut off valves
- Metering of any kind
- Duct leakage testing
- Fire protection interlock with HVAC equipment
- Overtime Wages
- BMS controls, interface and graphics
- Structural work
- Finish access doors
- Humidification
- Asbestos testing and removal
- Dumpsters and disposal of waste material
- Gas meter

Please call if you have any questions. We appreciate the opportunity to work with you.

Respectfully,

Nigel H. Churchill
Design Engineer

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- In light of ASHRAE recommendations for Covid-19, VHV has elected not to offer Demand Control Ventilation.
- VHV elected to not offer basement ventilation because dehumidification will prove to be more effective.

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Add Alternate #1:

Furnish and install a portable, 100 pint, dehumidifier in the basement with the discharge piping to the existing basement sump.

Add Alt #1 Price: $2,670 (Two Thousand, Six Hundred Seventy Dollars)

Add Alternate #2:

Furnish and install a UV-C lamp disinfection system in the FCU supply air ductwork. This system will run continuously.

Add Alt #2 Price: $3,030 (Three Thousand, Thirty Dollars)

Deduct Alternate #3:

In lieu of the standard heat pump being operable down to 20°F, furnish a cold climate heat pump that can operate down to -4°F.

Deduct Alt #3 Price: $-2,202 (-Two Thousand, Two Hundred Two Dollars)

Add Alternate #4:

Perform Duct leakage testing in accordance with SMACNA Standards.

Add Alt #4 Price: $2,240 (Two Thousand, Two Hundred Forty Dollars)

Add Alternate #5:

In lieu of a single zone for the first floor, furnish and install an HVAC system with the zoning as follows:

- Library Stacks
- Library Front Desk Area
- Entry
- First Floor Bathroom
- First Floor Offices, (typ of 3 offices)

Add Alt #5 Price: $29,181 (Twenty-Nine Thousand, One Hundred Eighty-One Dollars)

Exclusions:

- Sales tax
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- Overtime Wages
- BMS controls, interface and graphics
- Structural work
- Finish access doors
- Humidification
- Asbestos testing and removal
- Dumpsters and disposal of waste material
- Gas meter

Please call if you have any questions. We appreciate the opportunity to work with you.

Respectfully,

Nigel H. Churchill
Design Engineer

Exhibit A.1 - Schedule of Contract Values

Mechanical Schedule of Values	Amount
Demolition & make safe of existing / abandoned systems	$ 5,336.00
Plumbing Piping	$ 1,798.00
Plumbing Insulation	$ 0.00
Sump pumps and controls	$ 7,365.00
Refrigerant Piping	$ 4,628.00
HVAC Major Equipment	$ 21,328.00
HVAC Ductwork & RGD's	$ 27,807.00
HVAC Insulation (Pipe and Ductwork)	$ 3,355.00
Gas Piping	$ 1,993.00
Controls	$ 11,805.00
Test & Balance	$ 1,320.00
Electrical	$ 12,760.00
Start-up	$ 704.00
Close Out Documents	$ 2,250.00
Misc.	$ 3,283.00
Design	$ 8,610.00
State and Local Tax	$ 0.00
Base Contract Total	$ 114,342.00
Alternates:	
Add 100% P&P Bond	$ 2,775.00
Alternate for UV-C germicidal disinfection	$ 3,030.00
Carried ~~Alternate for~~ MERV 13 filters	$ Base Price
Alternate for MERV 17 filters	$ None
Alternate for Zone Damper System	$ 29,181.00
Alternate for Basement Ventilation	$ None
Alternate for Basement Dehumidification	$ 2,670.00
Voluntary Alternate: Furnace Delete to Cold Climate HP	$ (-2,202.00)
Voluntary Alternate: Duct Testing	$ 2,240.00
Voluntary Alternate:	$ None