

Summary of Mechanical Scope:

Replacement of classroom console heat pumps:

Existing console heat pumps will be replaced with new high efficiency units. The new units will be upgraded to include hot gas reheat capabilities which will significantly improve the ability for dehumidification in the building. The hot gas reheat capability will require a new thermostat/humidistats to monitor humidity and control programming upgrade to accommodate the new capabilities.

The existing Venmar Energy Recovery Ventilator will have packaged controls removed and replaced with Johnson Controls to allow for full unit control and monitoring by the Centralized building automation system at the District Office. The unit currently has packaged controls from the manufacturer which are very limiting to the Owner to adjust set points or operating conditions to improve function related to actual building conditions.

A recirculation damper and control sequence will be added to the ERV which will allow for a specific dehumidification mode where the unit recirculates air and dehumidifies the air without bringing in outdoor air during unoccupied hours.

A glycol feeder and propylene glycol will be added to the existing geothermal loop system to bring the system up to 25% concentration. The glycol will allow us to adjust the loop water temperatures downward slightly to reduce the run times on the electric boiler both saving energy and mitigating concerns about frosting of coils in the heat pumps.

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