

District Name: Henderson County District Code: _____ Facility Name: South Middle School School Code: _____

Project Name: South Middle School HVAC Renovation

PROJECT TYPE: Yes No Gross Building Area (sf.)

New Building ☐ ☒ _____

Addition ☐ ☒ _____

Renovation ☒ ☐ _____

Provisions for Future Expansion: _____

Proposed Alternates: (1) Owner preferred Trane equipment and controls.

(2) Carpet replacement in Auditorium

(3) _____

Describe special conditions, phasing of project and alternates, attach a supplemental sheet, if needed.

BUILDING CONSTRUCTION CHARACTERISTICS:

Description of Building Structure:

Foundation: _____

Exterior Walls: _____

Roof Structure: _____

ENERGY EFFICIENT DESIGN (KRS 157.450 and KRS 157.455):

Assume 60 Energy Consumption "Existing" (kBtu/sf/yr)

Appx. 42 (30%) Energy Consumption Target (kBtu/sf/yr)

YES NO

☐ ☒ LEED Certified Other: _____

☒ ☐ Designed to meet Energy Star

☒ ☐ Exceeds ASHRAE 90.1(2007) by 10% (Minimum)

☐ ☒ Whole Building Life Cycle Cost Analysis Demonstrating Cost Effective Design

Life Cycle Cost Analysis Software Used: _____

If not yes to one or more of the above, explain why. Henderson County Schools desires geothermal and does not require LEED for this mostly HVAC upgrade project.

☐ ☒ Designed to be Net-Zero

☒ ☐ Designed to be Net-Zero Ready

Energy Efficient Design Features: (See List Page 4, or Use Drop Down List)

East / West Building Orientation ☒ ES NO

Gross Exterior Wall Area (sf): _____ Avg. Exterior Wall R-Value: _____

Gross Window / Door Area (sf): _____ Avg. Window/Door R-Value: _____

Gross Roof Area (sf): _____ Avg. Roof R-Value: _____

Exterior Wall Type: _____ Other: _____

Roofing Type: _____ Other: _____

HVAC System Type: C - ground source heat pump system with air make up Other: _____

Classroom Lighting: E - other Other: LED

Active Daylighting: B - occupancy light control sensors Other: _____

Passive Daylighting: G - none Other: _____

On Site Energy Generation: G - none Other: _____

Air Purification Systems : YES ☒ NO ☐Gray Water System : YES ☐ NO ☒Low Water Use Fixtures : YES ☐ NO ☒

Other: _____

PLUMBING:Type of Sewage Disposal: Existing municipal.**HEATING, VENTILATION AND AIR CONDITIONING:**Heating Only: _____ Heating & Mechanical: _____ HVAC: X A/C Only: _____
Ventilation OnlyFuel Source/Backup (if applicable): Ground source geothermal with no backup.**ELECTRICAL:**Source of Electric Power: Henderson Municipal Power & LightVoltage Serving Facility: 120/208 volt - 3 phase

Number of Convenience Outlets:

Classrooms existingLibrary/Media Center existingBusiness Ed n/aFamily & Consumer Science existingCamera System: existing

Lighting Intensity (fc.):

Std. Classrooms 50Library/Media Ctr 75Science Lab n/aScience Clrm n/aBand/Music n/aBusiness Ed n/aShops n/aCorridors 25Stairways n/aCafeteria 50Pre-School Clrm n/aArt Classroom n/aGymnasium n/a**SPECIAL EQUIPMENT:**


System	Conduit Only	Conduit & Wiring	Complete with Equipment
Bell	_____	_____	<u>existing</u>
Clock	_____	_____	<u>existing</u>
Fire Alarm	_____	_____	<u>existing</u>
Intercom	_____	_____	<u>existing</u>
Telephone	_____	_____	<u>existing</u>
Television	_____	_____	<u>n/a</u>
Computer	_____	_____	<u>existing</u>
Wireless Network	_____	_____	<u>existing</u>
Interactive White bd	_____	_____	<u>existing</u>
Voice Amplification	_____	_____	<u>n/a</u>

FIXED EQUIPMENT:

Teacher Cabinet	<u>n/a</u>	Custodial Room Shelves	<u>n/a</u>
Student Lockers	<u>n/a</u>	Science Laboratories	<u>n/a</u>
Folding Bleachers	<u>n/a</u>	Family & Consumer Sci	<u>n/a</u>
Library Furnishings	<u>n/a</u>	Other	<u>n/a</u>
Dry Food Shelves	<u>n/a</u>	Other	<u>n/a</u>

AREA	FLOOR	WAINSCOT	WALLS	CEILING
General Office	n/a	n/a	n/a	ACT Ceiling
Corridors	n/a	n/a	n/a	ACT Ceiling
Custodial	n/a	n/a	n/a	n/a
Kitchen	n/a	n/a	n/a	ACT Ceiling
Cafeteria	n/a	n/a	n/a	ACT Ceiling
Gym	n/a	n/a	n/a	n/a
Showers/Locker	n/a	n/a	n/a	n/a
Toilets	n/a	n/a	n/a	n/a
Library/Media Cntr	n/a	n/a	n/a	ACT Ceiling
Classrooms	VCT patch	n/a	n/a	ACT Ceiling
Music	n/a	n/a	n/a	ACT Ceiling
Art	VCT patch	n/a	n/a	ACT Ceiling
Science	VCT patch	n/a	n/a	ACT Ceiling
FMD	VCT patch	n/a	n/a	ACT Ceiling

Kentucky Registered Architect: Beth Fowler Date: 7/14/2025
Signature

Kentucky Registered Engineer: Baccus Oliver, PE  Date: 7/14/2025
Signature

Board Designee or Superintendent: _____ Date: _____
Signature

Energy Efficient Design Features Lists

Exterior Wall Type

- A - face brick, captured air space, board insulation and waterproof CMU
- B - face brick, captured air space, sprayed insulation on CMU
- C - face brick, captured air space, sheathing over metal insulated stud system, interior finish system
- D - face brick, ICF poured concrete, interior finish system
- E - other, describe

Roofing Type List

- A - modified bitumen over rigid insulation
- B - EPDM over rigid insulation
- C - plastic single ply over rigid insulation
- D - metal roofing over nailable deck with insulation
- E - asphalt shingle roofing over nailable deck with insulation
- F - other, describe

HVAC System Type List

- A - two pipe unit ventilator system
- B - water source heat pump system with air make up
- C - ground source heat pump system with air make up
- D - hybrid water source heat pump system with boiler/chiller and well field with air make up
- E - variable refrigerant flow (VRF) with air make up
- F - hybrid geothermal/variable refrigerant flow (VRF) with air make up
- G - variable refrigerant volume (VRV) with air make up
- H - hybrid geothermal/variable refrigerant volume (VRV) with air make up
- I - chilled beam system
- J - hybrid chilled beam/geothermal system
- L - other

Classroom Lighting List

- A - T8 fluorescent fixtures
- B - T5 fluorescent fixtures
- C - high energy gas fixtures
- D - low voltage systems
- E - other

Active Daylight System List

- A - classroom fluorescent dimming including dimming switches, ballasts and sensors
- B - occupancy light control sensors
- C - remote sensor bi-level lighting with no fixtures dimming
- D - manual bi-level lighting with no fixture dimming
- E - other
- F - none

Passive Daylight Systems List

- A - upper classroom clerestory lighting with sloped ceiling plane
- B - lower classroom clerestory lighting that does NOT require sloping the ceiling place
- C - exterior light shelves
- D - solar tubes without dimming
- E - solar tubes with internal dimmers
- F - other
- G - none

On Site Energy Generation List

- A - solar water heating
- B - solar electric generation (small units for demonstration or for limited areas)
- C - solar electric generation (to support the entire building's energy needs)
- D - wind generation (small units for demonstration or for limited areas)
- E - wind generation (to support the entire building's energy needs)
- F - other
- G - none

For Reference