

District Name: Mercer County District Code: 421 Facility Name: Kenneth D. King Middle School School Code: 035

Project Name: Mercer County Schools Guaranteed Energy Savings Contract

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

New Building ☐ ☒ _____

Addition ☐ ☒ _____

Renovation ☒ ☐ 88,327

Provisions for Future Expansion: _____

Proposed Alternates: (1) _____

(2) _____

(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):

92.1 Energy Consumption "Existing" (kBtu/sf/yr)

38.0 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. _____

☐ ☒ 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 ☐ YES ☐ 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: L - other Other: VRF and 2-pipe

Classroom Lighting: E - other Other: LED

Active Daylighting: F - none 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: Municipal

HEATING, VENTILATION AND AIR CONDITIONING:

Heating Only: _____ Heating & Mechanical: _____ HVAC: X A/C Only: _____
Ventilation Only

Fuel Source/Backup (if applicable): N/A

ELECTRICAL:

Source of Electric Power: Utility (KU)

Voltage Serving Facility: 277/480v

Number of Convenience Outlets:

Classrooms

NA

Library/Media Center

NA

Business Ed

NA

Family & Consumer Science

NA

Camera System:

NA

Lighting Intensity (fc.):

Std. Classrooms

50

Library/Media Ctr

75

Science Lab

50

Science Clrm

50

Band/Music

50

Business Ed

50

Shops

50

Corridors

20

Stairways

20

Cafeteria

50

Pre-School Clrm

NA

Art Classroom

100

Gymnasium

50

SPECIAL EQUIPMENT:

System	Conduit Only	Conduit & Wiring	Complete with Equipment
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Bell

NA

Clock

NA

Fire Alarm

NA

Intercom

NA

Telephone

NA

Television

NA

Computer

NA

Wireless Network

NA

Interactive White bd

NA

Voice Amplification

NA

FIXED EQUIPMENT:

Teacher Cabinet

Custodial Room Shelves

Student Lockers

Science Laboratories

Folding Bleachers

Family & Consumer Sci

Library Furnishings

Other

Dry Food Shelves

Other

INTERIOR FINISH SCHEDULE:

AREA	FLOOR	WAINSCOT	WALLS	CEILING
General Office				
Corridors				
Custodial				
Kitchen				
Cafeteria				
Gym				
Showers/Locker				
Toilets				
Library/Media Cntr				
Classrooms				
Music				
Art				
Science				
FMD				
OTHER AREAS				

Miscellaneous Project Specific Features: _____

Kentucky Registered Architect: _____

Date: _____

Signature

Kentucky Registered Engineer: _____

Date: 10-17-18

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