KENTUCKY DEPARTMENT OF EDUCATION

BG-2

702 KAR 4:160 — **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

District Name: Todd County School District | District Code: 551 | Facility Name: Todd County Middle School | School Code:

Project Name: Todd Co. Middle School HVAC & Safety Upgrades

PROJECT TYPE:	Yes	No	Gross Building Area (sf.)
New Building	☐	☑	
Addition	☐	☑	
Renovation	☑	☐ (Life Safety/Security)	64,578

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: Slab on Grade - Concrete

Exterior Walls: Block / Brick Veneer

Roof Structure: Steel Structure with Insulated Metal Roof

ENERGY EFFICIENT DESIGN (KRS 157.450 and KRS 157.455):

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

35 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. The LEED Certification nor the Life Cycle Cost Analysis have been deemed as worthwhile additional expenses for this project, despite the building benefiting from many sustainable and energy efficient design features.

☐	☑	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): 34,465 SF — Avg. Exterior Wall R-Value:

Gross Window / Door Area (sf): 1,602 SF — Avg. Window/Door R-Value:

Gross Roof Area (sf): 63,816 SF — Avg. Roof R-Value:

Exterior Wall Type:	A - face brick, captured air space, board insulation and waterproof CMU	Other:
Roofing Type:	B - EPDM over rigid insulation	Other:
HVAC System Type:	L - other	Other:
Classroom Lighting:	E - other	Other:
Active Daylighting:	F - none	Other:
Passive Daylighting:	G - none	Other:
On Site Energy Generation:		Other:

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 plane
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

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: Ventilation Only _____ HVAC: X A/C Only: _____

Fuel Source/Backup (if applicable): _____

ELECTRICAL:

Source of Electric Power: Pennyrile Rural Electric Co-Op

Voltage Serving Facility: _____

Number of Convenience Outlets:
Classrooms _____
Library/Media Center _____
Business Ed _____
Family & Consumer Science _____

Camera System: _____

Lighting Intensity (fc.):
Std. Classrooms _____
Library/Media Ctr _____
Science Lab _____
Science Clrm _____
Band/Music _____
Business Ed _____
Shops _____
Corridors _____
Stairways _____
Cafeteria _____
Pre-School Clrm _____
Art Classroom _____
Gymnasium _____

SPECIAL EQUIPMENT:

System	Conduit Only	Conduit & Wiring	Complete with Equipment
Bell			Existing
Clock			Existing
Fire Alarm			Existing
Intercom			Existing
Telephone			Existing
Television			Existing
Computer			Existing
Wireless Network			Existing
Interactive White bd			Existing
Voice Amplification			Existing

FIXED EQUIPMENT:

Teacher Cabinet Existing
Student Lockers Existing
Folding Bleachers Existing
Library Furnishings Existing
Dry Food Shelves Existing

Custodial Room Shelves Existing
Science Laboratories Existing
Family & Consumer Sci Existing
Other _____
Other _____

INTERIOR FINISH SCHEDULE:

AREA	FLOOR	WAINSCOT	WALLS	CEILING
General Office	VCT		GWB	ACT
Corridors	VCT		CMU	ACT
Custodial	VCT		CMU	ACT
Kitchen	Ceramic		CMU	ACT
Cafeteria	VCT		CMU	ACT
Gym	Hardwood		CMU	ACT
Showers/Locker	Ceramic		CMU	ACT
Toilets	Ceramic		CMU	ACT
Library/Media Cntr	Carpet		CMU	ACT
Classrooms	VCT		CMU	ACT
Music	VCT		CMU	ACT
Art	VCT		CMU	ACT
Science	VCT		CMU	ACT
FMD	VCT		CMU	ACT
OTHER AREAS				

Miscellaneous Project Specific Features: _____

Kentucky Registered Architect: _____ Signature Date: 01/06/2021

Kentucky Registered Engineer: _____ Signature Date: 1-6-21

Board Designee or Superintendent: _____ Signature Date: _____