

KENTUCKY DEPARTMENT OF EDUCATION

702 KAR 4:160

OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

BG-2

District Name: Boone County District Code: 035 Facility Name: Goodridge Elementary School School Code: 055

Project Name: Plumbing and HVAC Upgrades REH Project #129-924-J Date: 2/13/25

PROJECT TYPE: Yes No Gross Building Area (sf.)
 New Building ☐ ☒ _____
 Addition ☐ ☒ _____
 Renovation ☒ ☐ _____

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):

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

61 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: hot/chilled water
 Classroom Lighting: _____ Other: _____
 Active Daylighting: _____ Other: _____
 Passive Daylighting: _____ Other: _____
 On Site Energy Generation: _____ Other: _____

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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): natural gas

ELECTRICAL:

Source of Electric Power: utility

Voltage Serving Facility: 480/3

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: N/A

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

FIXED EQUIPMENT:

Teacher Cabinet

Student Lockers

Folding Bleachers

Library Furnishings

Dry Food Shelves

Custodial Room Shelves

Science Laboratories

Family & Consumer Sci

Other

Other

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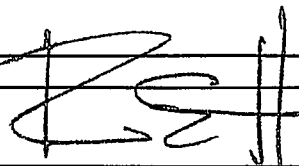
Date: 2/13/25

INTERIOR FINISH SCHEDULE: N/A

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:




Signature

Robert Ehmet Hayes & Associates, PLLC

Date: 1/22/2025

Kentucky Registered Engineer:



Signature

ShROUT Tate Wilson

Date: 1/22/2025

Board Designee or Superintendent:

Signature

Boone County Board of Education

Date: _____

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

For Reference

District Name: Boone County District Code: 035 Facility Name: Goodridge Elementary School School Code: 055

Project Name: Plumbing and HVAC Upgrades REH Project #129-924-J Date: 2/13/25

Project Phase: Design Development: ☒ Construction Documents: ☐

1. Site Development	\$	
2. General Construction	\$	72,000
3. Heating, Ventilation & Air Conditioning	\$	1,714,554
4. Plumbing (Include Sprinkler System)	\$	138,000
5. Electrical Work (Including CT)	\$	320,160
6. Sewage Disposal System	\$	0
7. Total Construction Cost (1-6)		2,244,714
8. Site Acquisition Cost (Purchase Price)	\$	
9. Legal Services	\$	
10. Fiscal Agent Fee	\$	
11. Bond Discount	\$	
12. Architect/Engineer Fee	\$	182,495
13. Construction/Manager Fee (If Applicable)	\$	
14. Equipment/Furnishings (Not Fixed)/Computers	\$	
15. Property & Topographic Survey	\$	
16. Geotechnical Survey & Report	\$	
17. Special Inspections	\$	
18. Asbestos Abatement	\$	
19. Commissioning Fee	\$	40,000
20. Plan Review Fee	\$	
21. Printing & Distribution of Bid Docs	\$	1,500
22. Contingencies - Minimum 5% of Line 7	\$	112,236
23. Testing and Balancing	\$	40,000
24. Total Other Cost (8-23)		376,231
25. TOTAL PROJECT COST (line 7 + line 24)		\$2,620,945

- a. Gross Square Foot Area*
- b. Total Cost Per Square Foot
- c. Total Cost Per Pupil
- d. Gross Sq. Ft. Area of Alternates
* Base Bid Area Only

Kentucky Registered Architect/Engineer:


Robert Ehmet Hayes & Associates, PLLC

Date: 1/22/25

Board of Education Designee: _____

Date: _____