

District Name: Carroll County District Code: 101 Facility Name: Kathryn Winn Elementary School School Code: 010

Project Name: HVAC Renovation Phase 1

PROJECT TYPE: Yes No Gross Building Area (sf.)
 New Building _____
 Addition _____
 Renovation 52,360 s.f.
 Provisions for Future Expansion: NA

Proposed Alternates: (1) Replace the low-slope roof areas with an insulated modified bitumen roofing system
 (2) Install a prefinished metal wrap over the existing & new wood gutter board, soffit and trim.
 (3) _____

Describe special conditions, phasing of project and alternates, attach a supplemental sheet, if needed.
The renovation will occur in phases. Some classrooms will be made available prior to summer break.

BUILDING CONSTRUCTION CHARACTERISTICS:

Description of Building Structure:

Foundation: Existing concrete spread footings

Exterior Walls: Existing load bearing masonry walls.

Roof Structure: Existing steel trusses & metal deck; existing tectum deck & bulb tees

ENERGY EFFICIENT DESIGN (KRS 157.450 and KRS 157.455):

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

49 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: Carrier Hourly Analysis Program

If not yes to one or more of the above, explain why. School project contains a limited budget, is an existing school renovation, and is performed to resolve a school humidity concern. LEED certification and Energy Star is outside project scope.

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): 18,150 Avg. Exterior Wall R-Value: 4 (original) & 18.5 (addition)

Gross Window / Door Area (sf): 3,015 Avg. Window/Door R-Value: 3

Gross Roof Area (sf): 52,360 Avg. Roof R-Value: 25

Exterior Wall Type: A - face brick, captured air space, board insulation and waterproof CMU Other: _____

Roofing Type: E - asphalt shingle roofing over nailable deck with insulation Other: _____

HVAC System Type: E - variable refrigerant flow (VRF) with air make up Other: _____

Classroom Lighting: A - T8 fluorescent fixtures 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: Municipal

HEATING, VENTILATION AND AIR CONDITIONING:

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

Fuel Source/Backup (if applicable): _____

ELECTRICAL:

Source of Electric Power: Municipal

Voltage Serving Facility: 208 / 120 / 3 Phase

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 NA (existing)
Science Lab NA
Science Clrm NA
Band/Music NA
Business Ed NA
Shops NA
Corridors 30
Stairways NA
Cafeteria 50
Pre-School Clrm NA
Art Classroom NA
Gymnasium NA (existing)

SPECIAL EQUIPMENT:

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	_____	Custodial Room Shelves	_____
Student Lockers	_____	Science Laboratories	_____
Folding Bleachers	_____	Family & Consumer Sci	_____
Library Furnishings	_____	Other	_____
Dry Food Shelves	_____	Other	_____

OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

INTERIOR FINISH SCHEDULE:

AREA	FLOOR	WAINSCOT	WALLS	CEILING
General Office	Existing	NA	Existing	Suspended Acoustical Tile
Corridors	Existing	NA	Existing	Suspended Acoustical Tile
Custodial	Existing	NA	Existing	Suspended Acoustical Tile
Kitchen	Existing	NA	Existing	Suspended FRP Tile
Cafeteria	Existing	NA	Existing	Suspended Acoustical Tile
Gym (M.P.)	Existing	NA	Existing	Existing
Showers/Locker	NA	NA	NA	NA
Toilets	Existing	NA	Existing	Suspended Acoustical Tile
Library/Media Cntr	Existing	NA	Existing	Suspended Acoustical Tile
Classrooms	Existing	NA	Existing (Partial Paint)	Suspended Acoustical Tile
Music	Existing	NA	Existing	Suspended Acoustical Tile
Art	Existing	NA	Existing	Suspended Acoustical Tile
Science	Existing	NA	NA	NA
FMD	Existing	NA	Existing	Suspended Acoustical Tile

OTHER AREAS

Miscellaneous Project Specific Features: _____

Kentucky Registered Architect:

JRA Inc.

Signature

Date: 10-17-17

Kentucky Registered Engineer:

Kerr Greulich

Signature

Date: 10-18-17

Board Designee or Superintendent:

Signature

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
- G - none

For Reference