WOODFORD COUNTY BOARD OF EDUCATION
AGENDA ITEM

ITEM #: IXI **DATE:** December 13, 2021

TOPIC/TITLE: New WCHS - BG-2 (Construction Document Phase)

PRESENTER: Jeff Martello

ORIGIN:

- ☐ TOPIC PRESENTED FOR INFORMATION ONLY (No board action required.)
- ☒ ACTION REQUESTED AT THIS MEETING
- ☐ ITEM IS ON THE CONSENT AGENDA FOR APPROVAL
- ☐ ACTION REQUESTED AT FUTURE MEETING: (DATE)
- ☐ BOARD REVIEW REQUIRED BY
  - ☒ STATE OR FEDERAL LAW OR REGULATION
  - ☐ BOARD OF EDUCATION POLICY
  - ☐ OTHER:

PREVIOUS REVIEW, DISCUSSION OR ACTION:

- ☐ NO PREVIOUS BOARD REVIEW, DISCUSSION OR ACTION
- ☐ PREVIOUS REVIEW OR ACTION
  - ☐ DATE:
  - ☐ ACTION:

BACKGROUND INFORMATION:

For consideration of approval. New WCHS - BG-2 (Construction Document Phase). Outline Specifications Energy Design Criteria.

SUMMARY OF MAJOR ELEMENTS:

See above

IMPACT ON RESOURCES: Current BG-3 Reference @ $60,399,784.52

TIMETABLE FOR FURTHER REVIEW OR ACTION: NA

SUPERINTENDENT'S RECOMMENDATION: ☑ **Recommended** ☐ **Not Recommended**

Danny Adkins Jr.

District Name: Woodford | District Code: 601 | Facility Name: Woodford County High School | School Code: 84

Project Name: New Woodford County High School--Phase 1

PROJECT TYPE:

	Yes	No	Gross Building Area (sf.)
New Building	☑	☐	193,782
Addition	☐	☑	
Renovation	☐	☑	

Provisions for Future Expansion: At classroom wings.

Proposed Alternates:
(1) Cafeteria Revisions (4) Road Connection-Tyrone Pk. (7) Owner-pref. HVAC Controls Mfr.
(2) Epoxy Terrazzo Flooring (5) Tyrone Pk. ROW work (8) Owner-pref. Access Ctrls. Mfr./Installer
(3) Geothermal HVAC (6) Schoolhouse Rd. ROW work (9) Owner-pref. Door Hdwr. Mfrs.

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

BUILDING CONSTRUCTION CHARACTERISTICS:

Description of Building Structure:

Foundation: Loadbearing concrete masonry construction supported on shallow foundations.

Exterior Walls: Load-bearing masonry with masonry veneer and metal panel siding. Metal studs in limited areas. Precast concrete walls at the storm shelter.

Roof Structure: Sloped lightweight insulating concrete over metal decking and steel joists/beams. Metal decking over sloped steel joists/beams. Sloped precast concrete double tees with topping slab at storm shelter.

ENERGY EFFICIENT DESIGN (KRS 157.450 and KRS 157.455):

N/A Energy Consumption "Existing" (kBtu/sf/yr)

32 / 20 (Geo Alt) 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): 81,000 Avg. Exterior Wall R-Value: 22

Gross Window / Door Area (sf): 9,159 / 1,031 Avg. Window/Door R-Value: 2.2/10

Gross Roof Area (sf): 124,200 Avg. Roof R-Value: 30

Exterior Wall Type:	B - face brick, captured air space, sprayed insulation on CMU	Other:	Metal Panel
Roofing Type:	C - plastic single ply over rigid insulation	Other:	Metal Roof
HVAC System Type:	B - water source heat pump system with air make up	Other:	Alt - System D
Classroom Lighting:	E - other	Other:	LED
Active Daylighting:	A - classroom fluorescent dimming including dimming switches, ballasts and sensors	Other:	
Passive Daylighting:	D - solar tubes without dimming	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: City Sanitary

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: Pad-mount transformer, Kentucky Utilities

Voltage Serving Facility: 277/480V/3PH/4W

Number of Convenience Outlets:

Classrooms	8
Library/Media Center	18
Business Ed	8
Family & Consumer Science	8

Camera System: Yes

Lighting Intensity (fc.):

Std. Classrooms	50
Library/Media Ctr	75
Science Lab	50
Science Clrm	50
Band/Music	50
Business Ed	50
Shops	75
Corridors	20
Stairways	20
Cafeteria	50
Pre-School Clrm	N/A
Art Classroom	100
Gymnasium	50

SPECIAL EQUIPMENT:

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

FIXED EQUIPMENT:

Teacher Cabinet	Yes	Custodial Room Shelves	
Student Lockers	Yes (limited)	Science Laboratories	Yes
Folding Bleachers	Yes	Family & Consumer Sci	Yes
Library Furnishings	Yes	Other	Fixed Bleachers
Dry Food Shelves	Yes	Other	

INTERIOR FINISH SCHEDULE:

AREA	FLOOR	WAINSCOT	WALLS	CEILING
General Office	LVT		Paint	Acoustical Ceiling Panel
Corridors	VCT		Paint	Painted Gypsum/ACT
Custodial	Sealed Concrete			
Kitchen	Quarry Tile		Paint/FRP	Washable Vinyl Ceiling Tile
Cafeteria	VCT		Paint	Painted Gypsum/ACT
Gym	Clear Stained Maple	Paint	Paint/Acoustical panels	Acoustical Insulation on Deck
Showers/Locker	Sealed Concrete		Paint/Ceramic Tile	Painted Gypsum
Toilets	Ceramic Tile		Paint/Ceramic Tile	Painted Gypsum
Library/Media Cntr	Carpet		Paint	Painted Gypsum/ACT
Classrooms	VCT		Paint	Acoustical Ceiling Panel
Music	VCT		Paint/Acoustical panels	Acoustical Ceiling Panel
Art	VCT		Paint	Acoustical Ceiling Panel
Science	VCT		Paint	Acoustical Ceiling Panel
FMD	VCT		Paint	Acoustical Ceiling Panel
OTHER AREAS				
Auditorium	Sealed Conc./Carpet/Wood		Paint/Acoustical panels	Painted Gyp./Acoustical Panels

Miscellaneous Project Specific Features: _____

Kentucky Registered Architect: _____ Date: 12/1/2021
Signature

Kentucky Registered Engineer: _____ Date: 12/01/2021
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