# **OUTLINE SPECIFICATIONS ENERGY-DESIGN CRITERIA**

District Name: <u>Henderso</u>	n County	District Code:	251	Facility Name:	East Heights Elementary	School Code:	33		
Project Name: East Heights Elementary School Partial Roof and Partial Asphalt Replacement									
PROJECT TYPE: New Building Addition Renovation Provisions for Future	Yes  U Expansion:	No		Gross Bu	uilding Area (sf.)				
Proposed Alternates: (1) N/A (2)									
(3)									
BUILDING CONSTR	RUCTION CH	IARACTERIS	ΓICS:						
The second secon	Description of Building Structure: Foundation:								
Exterior Walls									
Roof Structure	Existing re	oof deck							
ENERGY EFFICIEN	T DESIGN (F	KRS 157.450 a	and KRS	<u>157.455)</u> :					
	_Energy Co	nsumption "Ex	kisting" (kl	Btu/sf/yr)					
	Energy Co	nsumption Tai	rget (kBtu	/sf/yr)					
YES NO		v. <del>.</del>	- n						
	LEED Cert	ified	Othe	er:					
	Designed t	o meet Energ	y Star						
	Exceeds A	SHRAE 90.1(	2007) by	10% (Minimur	n)				
		TO 150		70	strating Cost Effective Design				
	Li	fe Cycle Cost	Analysis	Software Use	d:				
If not yes to one or	more of the	above, expla	in why.	3					
	Dosigned t	o be Net-Zero							
	= 3000								
☐ ☐ ☐ ☐ 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:						ie:			
Gross Roof Area (sf): 40,028 sf total area to be reroofed.  Avg. Roof R-Value:									
Exterior Wall Type:						Other:			
Roofing Type:		E - asph	alt shingle re	oofing over nailab	le deck with insulation	Other:			
HVAC System Type:						Other:			
Classroom Lighting:						Other:			
Active Daylighting: Other:									
Passive Daylighting: Other:									
On Site Energy Generation:									

# KENTUCKY DEPARTMENT OF EDUCATION

702 KAR 4:160

# **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

Air Purification Systems :	YES		NO	<u>√</u>			
Gray Water System :	YES	5	NO	<b>✓</b>			
-							
PLUMBING:							
Type of Sewage Disposal	: <u>N/A</u>	-					
HEATING, VENTILATION	AND AIR CON	IDITIO	NING	<u>}</u> :			
Heating Only:	Heating & M Ventilation C		ical:			HVAC:	A/C Only:
Fuel Source/Backup (if ap	oplicable):						
ELECTRICAL: N/A							
Source of Electric Power:						Lighting Intensity (fc.): Std. Classrooms	
Voltage Serving Facility:						Library/Media Ctr Science Lab	0
Number of Convenience of Classrooms Library/Media Center Business Ed Family & Consumer Scient Camera System:	8					Science Lab Science Clrm Band/Music Business Ed Shops Corridors Stairways Cafeteria Pre-School Clrm Art Classroom Gymnasium	
SPECIAL EQUIPMENT:	N/A						
System  Bell Clock Fire Alarm Intercom Telephone Television Computer Wireless Network Interactive White bd Voice Amplification	Conduit Only				Conduit 8	& Wiring	Complete with Equipment
FIXED EQUIPMENT:							
Teacher Cabinet Student Lockers Folding Bleachers Library Furnishings Dry Food Shelves					Se Fa O	ustodial Room Shelves cience Laboratories amily & Consumer Sci ther ther	

# OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

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 Register	red Architect:	Signature		Date:				
Kentucky Register	red Engineer:	Signature		Date:				
Board Designee o	r 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 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

Dist <u>Nan</u>	ne: Henderson County	District Code: 25	1	Facility Name:	East Heights Elementa		
F	Project Name: <u>East Height</u>	s Elementary Schoo	ol Parti	ial Roof and	Partial Asphalt Replace	ment	
Pro	ject Phase:	Design Developn	nent:		Construction	Documents:	
1.	Site Development			\$		<b>-</b> ((	
2.	General Construction			\$	501,605.00	<b>-</b> 2	
3.	Heating, Ventilation & Air Co	nditioning		\$			
4.	Plumbing (Include Sprinkler	System)		\$		-	
5.	Electrical Work			\$		<del>-</del>	
6	Sewage Disposal System			\$			
7.	Total Construction Cost (1-6	)				\$	501,605.00
8.	Site Acquisition Cost (Purch	ase Price)		\$			
9.	Legal Services			\$		=	
10.	Fiscal Agent Fee			\$		_	
11.	Bond Discount			\$		<del>-</del> -	
12.	Architect/Engineer Fee			\$	50,160.00	50. 50.	
	Construction/Manager Fee (	if Applicable)		\$			
14.	Equipment/Furnishings (Not	Fixed)/Computers		\$		_	
	Property & Topographic Sur			\$			
	Geotechnical Survey & Rep			\$		<del></del>	
	Special Inspections			\$		_	
	Asbestos Abatement			\$		<del>1</del>	
900	Commissioning Fee			\$			
	Plan Review Fee			\$		<del>-</del>	
	Printing & Distribution of Bio	I Doce		\$	4,500.00	<del>-</del>	
	Contingencies - Minimum 5			\$	25,081.00	_	
	23. Other Cost (Describe)					=	
	*			\$			<b>70 744 00</b>
24.	Total Other Cost (8-23)						79,741.00
25.	TOTAL PROJECT C	OST (line 7 + line 2	24)			\$	581,346.00
	a. Gross Squ	are Foot Area*				-	
		Per Square Foot				\$	
	c. Total Cost					\$	
	d. Gross Sq. * Base Bid	Ft. Area of Alternate Area Only	es				
Kei	ntucky Registered Architect/E	11.75 m				_Date:	
						Data	
Col	nstruction Manager:	-				_Date:	
De	and of Education Decimans					Date:	
B08	ard of Education Designee:						