## **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

District Name:	Elizabethte	own	District Code:	152	Facility Name:	TK Stone MS/Morningside ES	School Code:	035/020
Proje	ect Name:	Elizabethtown Independent Schools Guaranteed Energy Savings Contract						
PROJEC	T TYPE:	Yes	No		Gross Bu	uilding Area (sf.)		
New Buil	lding		<b>☑</b>					
Addition	Ü		Image: section of the content of the					
Renovati	ion	<b>2</b>		-	1	 35602		
Provisions for Future Expansion:					<u>- ·                                     </u>			
Proposed Alternates: (1)								
·		(2	<u> </u>					
		(3	)					
Describe special conditions, phasing of project and alternates, attach a supplemental sheet, if needed.								
BUILDING CONSTRUCTION CHARACTERISTICS:								
			, aloto I E lato I					
Descripti	ion of Buildin	-						
	Foundation							
E	xterior Walls							
Ro	oof Structure	:						
ENERG	Y EFFICIEN	<u>r design (k</u>	(RS 157.450 a	nd KRS 1	<u>157.455)</u> :			
	110.9	_Energy Cor	nsumption "Exi	isting" (kE	Btu/sf/yr)			
	69.7	_Energy Cor	nsumption Tar	get (kBtu/	sf/yr)			
YES	NO							
口	<b>I</b>	LEED Certi	ified	Othe	er:			
	7	Designed to	o meet Energy	Star				
Ø		Exceeds A	SHRAE 90.1(2	007) by 1	0% (Minimun	n)		
v		Whole Buil	ding Life Cycle	Cost Ana	alysis Demon	strating Cost Effective Design		
		Li	fe Cycle Cost	Analysis S	Software Use	d: Trane Trace		
If not ye	s to one or	more of the	above, explai	n why.				
		Docine - J:	o ho Not 7					
		_	o be Net-Zero	Dondy				
		Designed 1	o be Net-Zero	Ready				
Energy	Efficient De	sign Feature	es: (See List	Page 4, c	or Use Drop I	Down List)		
East / W	est Building	Orientation	□ YES	□N	10			
Gross Exterior Wall Area (sf):  Avg. Exterior Wall R-Value:								
Gross Window / Door Area (sf):  Avg. Window/Door R-Value:								
Gross R	oof Area (sf)	:				Avg. Roof R-Value:		
Exterior	Wall Type:						Other:	
Roofing	Туре:						Other:	
HVAC System Type:		B - water sour	rce heat pump sys	tem with air	make up		_ _ Other:	
Classroom Lighting:		E - other					Other:	T5/LED
Active D	aylighting:						Other:	
Passive	Daylighting:						_ Other:	
	Energy Gen	eration:					Other:	

## KENTUCKY DEPARTMENT OF EDUCATION

BG-2

702 KAR 4:160

# **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

Air Purification System	s: YES		O 🗵					
Gray Water System :	YES	□ NO	O 🗹					
Low Water Use Fixture Other:	es: YES		) <u> </u>					
PLUMBING:							· · · · · · · · · · · · · · · · · · ·	
Type of Sewage Dispo	sal:							
HEATING, VENTILATI					•		·	
Heating Only:	Heating & M Ventilation (		ıf:		HVAC:	<u> </u>	A/C Only:	
Fuel Source/Backup (if	f applicable):							
ELECTRICAL:								
Source of Electric Pow	er:				Lighting Intensi		:	
Voltage Serving Facilit	y:				Std. Classroom Library/Media ( Science Lab	_		
Number of Convenience Outlets: Classrooms Library/Media Center Business Ed Family & Consumer Science  Camera System:					Science CIrm Band/Music Business Ed Shops Corridors Stairways Cafeteria			
					Art Classroom Gymnasium	''' <del>-</del> -		
SPECIAL EQUIPMEN	<u>T</u> :							
System  Bell Clock Fire Alarm Intercom Telephone Television Computer Wireless Network Interactive White bd Voice Amplification  FIXED EQUIPMENT:	Conduit Only			Conduit 8	Wiring		Complete with Equipment	
Teacher Cabinet Student Lockers Folding Bleachers Library Furnishings Dry Food Shelves				S Fi O	ustodial Room Si cience Laboratori amily & Consume ther ther	ies		

## **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

702 KAR 4:160

INTERIOR FINISH SCHEDULE:								
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:								
GESC Qualified P	rovider:	facon	Date: <u>P-21-1</u> V					
Kentucky Register	ed Engineer:	Signature		Date: 8/21/2015				
Board Designee or	r Superintendent:		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

For Reference