# **OUTLINE SPECIFICATIONS ENERGY-DESIGN CRITERIA**

District Name: Mario	n County	District Code:	Facility 375 Name:	Marion County Middle School	School Code:					
Project Nam	e: <u>Marion Co</u>	unty Middle Sch	ool - Addition & Renovat	on						
PROJECT TYPE	E: Yes	No	Gross Build	ing Area (sf.)						
New Building										
Addition	<b>V</b>		570	0 sf						
Renovation										
Provisions for Fu	Provisions for Future Expansion: Relocation of some utilities and expansion of geothermal capacity for future additions.									
Proposed Alternates:		1) Owner preffe	rred HVAC controls							
·	(2	Owner prefferred door hardware.								
	(:	3)								
Describe specia	l conditions, phas	sing of project a	nd alternates, attach a su	pplemental sheet, if needed.						
BUILDING CON	ISTRUCTION CH	ARACTERIST	ICS:							
Description of B	uilding Structure:									
•	ation: Concrete s	spread footings								
	<u></u>									
Exterior \	Valls: <u>CMU struc</u>	ture with expan	ding spray foam insulatio	n and brick						
Roof Stru	cture: Steel joists	with corrugate	d metal deck.							
ENERGY EFFIC	IENT DESIGN (I	KRS 157.450 ar	nd KRS 157.455):							
44.4	Energy Co	nsumption "Exis	sting" (kBtu/sf/yr)							
		·								
44.4	Energy Co	nsumption Targ	jet (kBtu/sf/yr)							
YES NO										
	LEED Cert	tified	Other:							
✓	Designed	Designed to meet Energy Star								
✓	Exceeds A	SHRAE 90.1(20	007) by 10% (Minimum)							
	Whole Bui	lding Life Cycle	Cost Analysis Demonstra	ating Cost Effective Design						
	L	ife Cycle Cost A	Analysis Software Used:							
If not yes to on	e or more of the	above, explair	n why.							
	5									
	_	to be Net-Zero	D d							
✓	Designed	to be Net-Zero F	Ready							
Energy Efficien	t Design Featur	es: (See List F	Page 4, or Use Drop Do	wn List)						
East / West Buil	ding Orientation	□YES	✓O							
Gross Exterior V	Vall Area (sf):	4,341		Avg. Exterior Wall R-Value:	20					
Gross Window /	Door Area (sf):	268	_	Avg. Window/Door R-Value:	2					
Gross Roof Area	a (sf):	2,523		Avg. Roof R-Value:	28.5					
Exterior Wall Ty	pe: B - face brick	, captured air space	, sprayed insulation on CMU		Other:					
Roofing Type:	A - modified I	oitumen over rigid in	sulation		Other:					
HVAC System T	ype: C - ground so	ource heat pump sys	stem with air make up		Other:					
Classroom Light					Other: LED					
Active Daylightin					Other:					
Passive Dayligh					Other:					
On Site Energy	<u> </u>	G - none			Other:					

# **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

Air Purification System	ms: YES NO [	<u></u>	
Gray Water System :	YES NO [	<u></u>	
Low Water Use Fixture Other:	res: YES ✓ NO [		
PLUMBING:			
Type of Sewage Disp	osal: <u>Municipal</u>		
HEATING, VENTILA	TION AND AIR CONDITIONING:		
Heating Only: Heating & Mechanical: Ventilation Only		HVAC:X	_ A/C Only:
Fuel Source/Backup	(if applicable): Geothermal		_
ELECTRICAL:			
Source of Electric Po	wer: Utility	Lighting Intensity (fc.) Std. Classrooms	: 50
Voltage Serving Facility: 208/120/3ph and 480/277/			NA NA
Number of Convenier		Science Clrm	50
Classrooms	8	Band/Music	NA
Library/Media Center Business Ed	NA NA	Business Ed Shops	NA NA
Family & Consumer S		Corridors	20
r animy a concumer c	releties <u>14 t</u>	Stairways	20
Camera System:	NA	Cafeteria	NA
		Pre-School Clrm	NA
		Art Classroom	NA
		Gymnasium	NA
SPECIAL EQUIPME	<u>\T</u> :		
System	Conduit Only	Conduit & Wiring	Complete with Equipment
Bell	NA		
Clock	NA		
Fire Alarm			Yes
Intercom	NIA		Yes
Telephone Television	NA NA		
Computer	Yes		
Wireless Network	Yes		
Interactive White bd	Yes		
Voice Amplification	NA		
FIXED EQUIPMENT:	-		
Teacher Cabinet		Custodial Room Shelves	
Student Lockers		Science Laboratories	Yes
Folding Bleachers		Family & Consumer Sci Other	
Library Furnishings Dry Food Shelves		_ Other Other	
,	-	_	_

## 702 KAR 4:160

INTERIOR FINISH SCHEDULE:								
AREA	FLOOR	WAINSCOT	WALLS	CEILING				
General Office	N/A	N/A	N/A	N/A				
Corridors	VCT	N/A	Paint	ACT				
Custodial	N/A	N/A	N/A	N/A				
Kitchen	N/A	N/A	N/A	N/A				
Cafeteria	N/A	N/A	N/A	N/A				
Gym	N/A	N/A	N/A	N/A				
Showers/Locker	N/A	N/A	N/A	N/A				
Toilets	N/A	N/A	N/A	N/A				
Library/Media Cn	tr N/A	N/A	N/A	N/A				
Classrooms	VCT	N/A	Paint	ACT				
Music	N/A	N/A	N/A	N/A				
Art	N/A	N/A	N/A	N/A				
Science	VCT	N/A	Paint	ACT				
FMD	N/A	N/A	N/A	N/A				
OTHER AREAS								
Storage	Paint	N/A	Paint	<u>Paint</u>				
Miscellaneous Pr	oject Specific Featu	ıres:						
-								
Kentucky Registe	ered Architect			Date:				
rtomaony rtogiote	rod 7 ti ornitoot.	Signa	ture					
		Olgila	turo					
Kentucky Registe	ered Engineer			Date:				
. tomaony riogiste		Signa	ture					
		Signa						
Board Designee	or Superintendent:	Date:						
Dodia Dosignoo (	o. Supomitoriuoni.	Signa	ture					
		Signa						

#### **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