

Envelope
Skylit
Skylit
Roof
Glass
Glass
Wall
Partit
Floor
Adjac
Infiltr
Sub T

Internal
Light
Peop
Misc
Sub T

Ceiling
Ventila
Adj Air
Dehum
Ov/Und
Exhaust
Sup. F
Ret. F
Duct H
Under
Supply

Grand

COOLING COIL SELECTION										AREAS			HEATING COIL SELECTION				
		Total Capacity ton	Sens Cap. MWh	Coil Airflow cfm	Enter DBWB/HR °F	Leave DBWB/HR °F	°F	°F	Gross Total Capacity ton	Glass ft² (%)			Main Htg Capacity MWh	Coil Airflow cfm	Enter °F	Leave °F	
Main Ctg Aux Ctg Opt Vent	5.5	66.4	52.6	2,084	78.5	63.4	65.6	54.5	52.4	57.1	Floor	715	-66.0	2,084	608	90.0	
	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	0.0	0	0.0	0.0	
	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	1	0.0	0	0.0	0.0	
	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	ExFfr	0	0.0	0	0.0	0.0	
Total	5.5	66.4									Roof	715	0	0	0	0	
											Wall	1,325	0	0	0	0	
											Ext Door	0	0	0	0	0	
												Humidif	0	0	0	0	0
												Opt Vent	0	0	0	0	0
												Total	-66.0				

Envelope	
Skylight	
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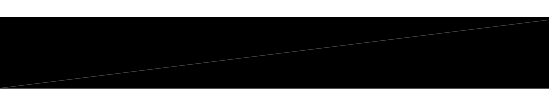
COOLING COIL SELECTION											AREAS				HEATING COIL SELECTION				
	Total Capacity Tons MWh	Sens Cap. MBH	Cool Airflow cfm	Enter DBWB/Hr °F °F	Leave DBWB/Hr °F °F	Gross Floor Area sq ft	Grill Area sq ft (%)	Capacity Coil Airflow cfm	Ent °F	Lvg °F									
Main Clg	8.7	104.9	776	3.241	78.0	64.7	72.8	55.7	53.9	60.9	Floor	660	-98.9	3.241	61.9	90.0			
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0	0.0	0	0	0			
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Int Door	0	0.0	0	0	0			
											EXIFR	0	0.0	0	0	0			
Total	8.7	104.9									RooF	650	0	0	0	0			
											Wall	375	120	32	0	0			
											Ext Door	0	0	0	0	0			
											Humidif	0	0.0	0	0	0			
											Opt Vent	0	0.0	0	0	0			
											Total	-98.9							

		COMcheck Software Version COMcheckWeb	
		Mechanical Compliance Certificate	
Project Information			
Energy Code:	2018 IECC		
Project Title:	231032 Panda Express (Concord, NC)		
Location:	Concord (Cabarrus), North Carolina		
Climate Zone:	3a		
Project Type:	New Construction		
Construction Site:	Owner/Agent:	Designer/Contractor:	
450 Kannapolis Parkway Concord, North Carolina 28027	Panda Express Chinese Kitchen Rosemead, California 91770	KPI Engineering, Inc. 3203 Queen Palm Rd Tampa, Florida 33619	
Additional Efficiency Package(s)			
Credits: 1.0 Required 1.0 Proposed High Performance HVAC, 1.0 credit			
Mechanical Systems List			
QuantitySystem Type & Description			
1	RTU1 (Single Zone) Heating: 1 each - Central Furnace, Gas, Capacity = 90 kBTU/h Proposed Efficiency = 90.00 % Et, Required Efficiency: 88.00 % Et, or 88% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 66 kBTU/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 16.00 EER, Required Efficiency = 12.10 EER Proposed Part Load Efficiency = 16.00 IEER, Required Part Load Efficiency = 13.90 IEER Fan System: RTU1 Kitchen/Restrooms -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN 1 Supply, Constant Volume, 2170 CFM, 1.8 motor nameplate hp, 90.0 fan efficiency grade, 0.9 total fan efficiency, 0.9 design fan efficiency , fan exception: Single fan <= SHP		
1	RTU2 (Single Zone) Heating: 1 each - Central Furnace, Gas, Capacity = 120 kBTU/h Proposed Efficiency = 92.00 % Et, Required Efficiency: 88.00 % Et, or 88% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 104 kBTU/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 13.80 EER, Required Efficiency = 12.10 EER Proposed Part Load Efficiency = 13.80 IEER, Required Part Load Efficiency = 13.90 IEER Fan System: RTU2 Dining -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN 2 Supply, Constant Volume, 3400 CFM, 3.0 motor nameplate hp, 90.0 fan efficiency grade, 0.9 total fan efficiency, 0.9 design fan efficiency , fan exception: Single fan <= SHP		
1	RTU3 (Single Zone) Heating: 1 each - Central Furnace, Gas, Capacity = 130 kBTU/h Proposed Efficiency = 92.00 % Et, Required Efficiency: 88.00 % Et, or 88% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 113 kBTU/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 13.80 EER, Required Efficiency = 12.10 EER Proposed Part Load Efficiency = 13.80 IEER, Required Part Load Efficiency = 13.90 IEER Fan System: RTU3 Kitchen/Dining -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN 3 Supply, Constant Volume, 3990 CFM, 4.2 motor nameplate hp, 90.0 fan efficiency grade, 0.9 total fan efficiency, 0.9 design fan efficiency , fan exception: Single fan <= SHP		
2	WH1 & WH2: Gas Instantaneous Water Heater, Capacity: 1 gallons, Input Rating: 199 kBTU/h No minimum efficiency requirement applies		
Project Title:		231032 Panda Express (Concord, NC)	
Data filename:		Report date: 03/13/23 Page 1	

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

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CHECK SET	04-20-
BID/PERMIT SET	06-01-

PANDA STORE #: TBD



PANDA HOME 2600
450 Kannapolis Parkway
Concord, NC 28027