

COMcheck Software Version 4.1.5.4
Mechanical Compliance Certificate

Project Information
Energy Code: 2018 IECC
Project Title:
Location: Norman, Oklahoma
Climate Zone: 3a
Project Type: New Construction

Construction Site: 1100 W Main St
Owner/Agent: Norman, OK 73069
Designer/Contractor: RTM Engineering Consultants
14901 Quorum Dr., Suite 565
Dallas, TX 75254

Additional Efficiency Package(s)

Credits: 1.0 Required 0.0 Proposed

Mechanical Systems List

- System Type & Description
- RTU-5, RTU-6 (Single Zone):
Single Package Heat Pump
Heating Mode Capacity = 191 kBtu/h
Proposed Efficiency = 3.30 COP, Required Efficiency = 3.20 COP
Cooling Mode Capacity = 240 kBtu/h, Air Economizer
Proposed Efficiency = 9.50 EER, Required Efficiency: 9.50 EER + 10.6 IEER
Fan System: FAN SYSTEM 1 - Compliance (Motor nameplate HP method) - Passes

Fans:
FAN 1 Supply, Constant Volume, 8000 CFM, 5.0 motor nameplate hp, 0.0 fan efficiency grade
 - EW-H-1:
Electric Storage Water Heater, Capacity: 119 gallons w/ Circulation Pump
Proposed Efficiency: 0.53 SL, %h (f > 12 kW), Required Efficiency: 0.53 SL, %h (f > 12 kW)

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 the permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.4 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Chad Leleux, PE
Name - Title Signature Date 6/3/26

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41]¹	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.8.4 [ME142]¹	Motors for fans that are not less than 1/2 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.8.5 [ME143]¹	Each DX cooling system > 45 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.12.1 [ME17]¹	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.2.3 [ME55]¹	HVAC equipment efficiency verified.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	See the Mechanical Systems list for values.
C403.5.5 [ME113]¹	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.2.2 [ME59]¹	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.7.1 [ME59]¹	Demand control ventilation provided for spaces >500 ft² and >25 people/1,000 ft² occupant density and served by systems with air-side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.7.2 [ME112]¹	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.7.6 [ME141]¹	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms. Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.7.4 [ME57]¹	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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COMcheck Software Version 4.1.5.4
Inspection Checklist
Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2]¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C103.2 [PR3]¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C406 [PR9]¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.7.3 [ME116]¹	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.11.1 [ME60]¹	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.5.3 [ME62]¹	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.5.3 [ME124]¹	Air economizers automatically reduce outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.5.3.3 for applicable device types and climate zones.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.5.3 [ME125]¹	System capable of relieving excess outdoor air during air economizer operation to prevent overpressurizing the building. The relief air outlet located to avoid recirculation into the building.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.5.3 [ME126]¹	Return, exhaust, relief and outdoor air dampers used in economizers have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Reference section C403.7.7 for details.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.4.3 [ME121]¹	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop. Open- or closed-circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.4.1 [ME63]¹	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45°F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60°F and cooling setpoint >= 80°F.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12.2 [FO9]¹	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature and outdoor temperature, future connection to controls.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C408.2.2 [ME53]¹	Air outlets and zone terminal devices have means for air balancing.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C403.5.3 [ME123]¹	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5.1 [PL6]¹	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C404.5.1 [PL6]¹	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C404.6.1 [PL3]¹	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C404.6.3 [PL7]¹	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C404.6.3 [PL7]¹	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C404.7 [PL8]¹	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C404.7 [PL8]¹	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26]¹	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C405.7 [EL17]¹	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C405.8.2 [EL28]¹	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
C405.9 [EL29]¹	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

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