

Lbrands
 STORE DESIGN & CONSTRUCTION
 Three Limited Parkway - Columbus, Ohio 43230
 Telephone: 614.415.7000 - Fax: 614.415.7349

COMcheck Software Version 4.0.8.1
Mechanical Compliance Certificate

Section 1: Project Information
 Energy Code: 2018 North Carolina Energy Conservation Code
 Project Title: Bath & Body Works - Charlotte Premium Outlets
 Project Type: Alteration
 Construction Site: 5404 New Fashion Way, Suite No. 240, Charlotte, NC 28278
 Owner/Agent: [Blank]
 Designer/Contractor: Tison Sales & Associates, 3000 West Shreveport Road, Rockwell, OH 43230, 614-459-9988

Section 2: General Information
 Building Location (for weather data): Charlotte, North Carolina
 Climate Zone: 3a

Section 3: Mechanical Systems List
Quantity: Systems Type & Description
 1. HP-1 (Single Zone) - Single Package Heat Pump
 Heating Motor Capacity = 20 kBTU/h
 Proposed Efficiency = 13.50 SEER, Required Efficiency = 7.70 SEER
 Cooling Mode Capacity = 61 kBTU/h
 Proposed Efficiency = 12.00 SEER, Required Efficiency = 13.00 SEER
 Fan System - FAN SYSTEM 1 (HP-1) - Compliance (Motor nameplate HP method) - Pooled
 Fan: FAN 1 Supply, Constant Volume, 2600 CFM, 1.0 motor horsepower hp
 1. HP-2 (Single Zone) - Single Package Heat Pump
 Heating Motor Capacity = 44 kBTU/h
 Proposed Efficiency = 13.50 SEER, Required Efficiency = 7.70 SEER
 Cooling Mode Capacity = 73 kBTU/h
 Proposed Efficiency = 11.40 EER, Required Efficiency = 11.50 EER
 Fan System - FAN 2 SYSTEM 2 (HP-2) - Compliance (Motor nameplate HP method) - Pooled
 Fan: FAN 2 Supply, Constant Volume, 2400 CFM, 1.0 motor horsepower hp

Section 4: Requirements Checklist
Requirements Specific to HP-1:
 1. Equipment minimum efficiency: Heat Pump: 7.70 SEER, 13.00 SEER
 2. In systems with a cooling capacity of less than 15,000 Btu/h, a heat strip outdoor temperature feedback is provided to prevent equipment heat operation in response to the thermostat being changed to a warmer setting. The feedback set no lower than setpoint and no higher than 40°F.
Requirements Specific to HP-2:
 1. Equipment minimum efficiency: Heat Pump: 8.50 COP, 11.50 EER
 2. Integrated air economizer required.
 3. Cooling system provides a means to relieve excess outdoor air during economizer operation.
Generic Requirements: Must be met by all systems to which the requirement is applicable:
 1. Plant equipment and system capacity no greater than needed to meet loads.

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Exceptions:
 Standby equipment automatically off when primary system is operating
 Multiple units controlled to separator operation as a function of load
 Minimum low temperature control device per system
 Minimum low humidity control device per installed humidifier/dehumidification system
 Load calculations per ASHRAE/ACCA Standard 18J
 Automatic Control: Setback to 55°F (heat) and 65°F (cool); 7-day clock, 2-hour occupant override; 10-hour backup
Exceptions:
 Continuously operating zones
 Outside air source for ventilation system capable of reducing O&A to required minimum
 R-6 supply and return air duct insulation in unconditioned space
 R-8 supply and return air duct insulation outside the building
 R-4 insulation between ducts and the building exterior when ducts are part of a building assembly
Exceptions:
 Ducts located within equipment
 Ducts with interior and exterior temperature difference not exceeding 15°F
 Mechanical fasteners and sealants used to connect ducts and air distribution equipment
 Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts, UL 181A or 181B tapes and mastic
 Hot water pipe insulation: 1.5 in. for pipes <= 1.5 in. and 2 in. for pipes > 1.5 in.
 Cold water/ refrigeration pipe insulation: 1.5 in. for pipes <= 1.5 in. and 1.5 in. for pipes > 1.5 in.
Exceptions:
 Piping within HVAC equipment
 Fluid temperatures between 50 and 100°F
 Fluid not heated or cooled with renewable energy
 Piping within room fan-coil units AHRI 440 rating and unit ventilators (with AHRI 440 rating)
 Flexible < 4 ft in length
 11. Operation and maintenance manual provided to building owner
 12. Blending device provided to accordance with ASHRAE 55.17
 13. Ventilation systems in buildings over 10,000 sq ft of conditioned area have demand controls. DCV systems are capable of providing outside supply air to at least 5% below design ventilation rate. In all buildings, systems larger than 200,000 sq ft, the maximum flow rate of air or more people per 1,000 sq ft of floor area control ventilation supply air flow by monitoring occupancy conditions
Exceptions:
 Systems with heat recovery
 Building zones where the primary ventilation needs are for process loads, including mechanical air handling units
 Individual units with less than 65 cfm/h of cooling capacity
 14. Mechanical exhaust dampers required on exhaust and outdoor air supply openings
Exceptions:
 Gravity dampers acceptable in buildings < 3 stories
 15. Automatic controls for freeze protection systems present
 16. Exhaust air heat recovery installed for systems > 200,000 sq ft greater area than 700,000 sq ft, unless exempted
Exceptions:
 Hermetic exhaust systems, commercial kitchen exhaust, clothes dryer exhaust, and other exhaust systems that International Mechanical Code prohibits the use of energy recovery systems
 Systems serving spaces that are heated and not cooled to less than 62°F
 Where more than 50% of the outdoor heating energy is provided from the recovery system
 Heating energy in climates with heating degree days less than 3000 HDD
 Cooling energy in climates with cooling degree days less than 3000 HDD
 Systems with dehumidification systems recovery in series with the cooling coil
 Laboratory and other exhaust systems that require air volume systems capable of reducing exhaust and makeup air volume to 20% of the total exhaust volume to make up air supply meeting the following makeup air requirements:
 a) at least 75% of the required supply air, at least 2°F below room setpoint temperature, c) cooled to no lower than 37° above room setpoint temperature, d) no less than 100% of the required supply air, e) no simultaneous heating and cooling

Section 5: Compliance Statement
 I, the undersigned, as the registered mechanical engineer responsible for the design and construction of the building systems, hereby certify that the information provided in this document is true and correct to the best of my knowledge and belief, and that the proposed mechanical alteration project has been designed in accordance with the applicable code requirements and the building plans, specifications and other calculations submitted with the permit application. The proposed mechanical alteration project has been designed in accordance with the applicable code requirements and the building plans, specifications and other calculations submitted with the permit application. The proposed mechanical alteration project has been designed in accordance with the applicable code requirements and the building plans, specifications and other calculations submitted with the permit application.

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To meet the 2012 North Carolina Energy Conservation Code, Chapter 8, requirements of COMcheck Version 4.0.8.1, the design complies with the mandatory requirements of the Requirements Checklist.
 NATHANIEL KOBBS - PE
 03/13/18
Section 6: Post Construction Compliance Statement
 HVAC record drawings of the actual installation of the equipment, including a permit for each equipment, are provided to the owner.
 HVAC O&M documents for all mechanical and electrical system components are provided to the owner.
 Written HVAC balancing and operations report provided to the owner.
 The above post construction requirements have been completed.

Principal Mechanical Engineer Name: _____ Signature: _____ Date: _____

Order Plans @

PROJECT INFORMATION:
 104.01.2445.01
BATH & BODY WORKS
CHARLOTTE PREMIUM OUTLETS
 5404 NEW FASHION WAY
 SPACE NO. 240
 CHARLOTTE, NC 28278
 NEW PACKAGE
 ES/ABC 2016 GENERATION
 03/13/18
 03/13/18
 03/13/18
 A/E PROJECT #:
 100107078

REVISIONS:
 REVISION BY: _____ DATE: _____
 ELITE CONSTRUCTION GROUP
 LAKE JACKSON, TX
 PHONE: (937) 284-8877
 NOTE: THESE PRELIMS HAVE BEEN
 REVIEWED BY SUPERVISOR/NOI/BE
 WILL BE 50 PERCENT OF WHAT IS
 NOTED ON PLANS

DATE ISSUED: 03/13/18
 DESIGNED BY: MAR
 DRAWN BY: TBA
 CHECKED BY: NJK

MECHANICAL COMCHECK

DRAWING NUMBER:
M06.01