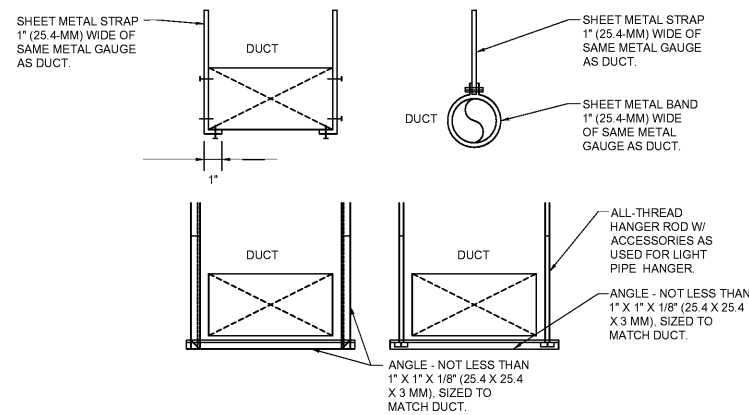
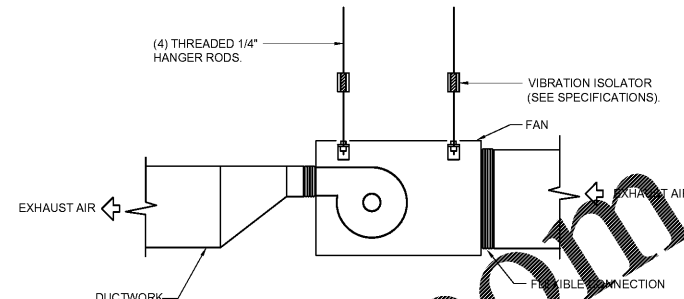


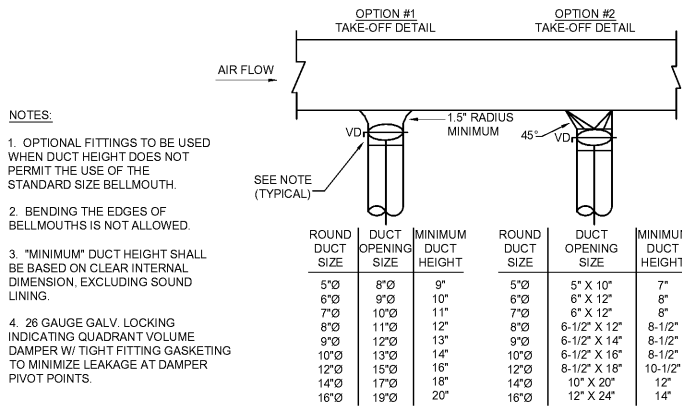
1 ROOF TOP UNIT DETAIL  
N.T.S. 11.21.17



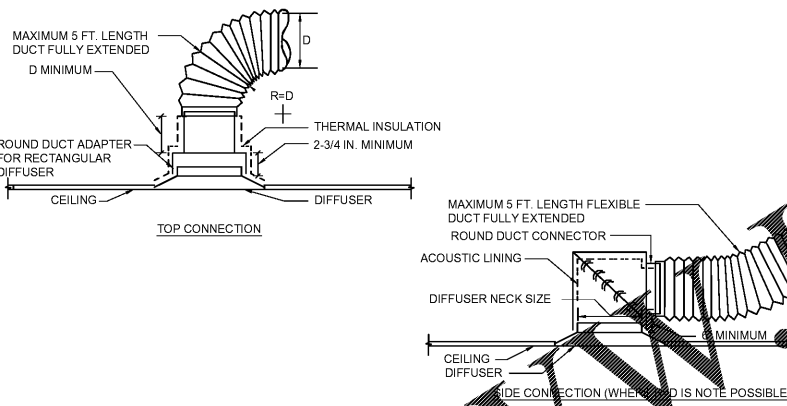
2 TYPICAL DUCT HANGING DETAIL  
N.T.S. 11.21.17



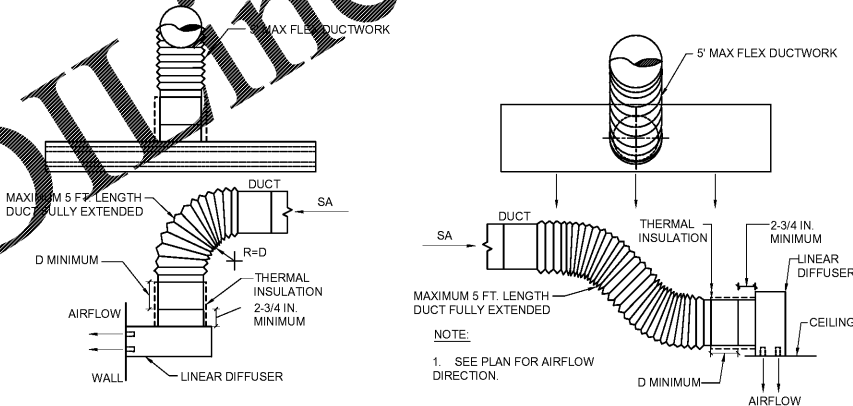
3 INLINE EXHAUST FAN DETAIL  
N.T.S. 11.21.17



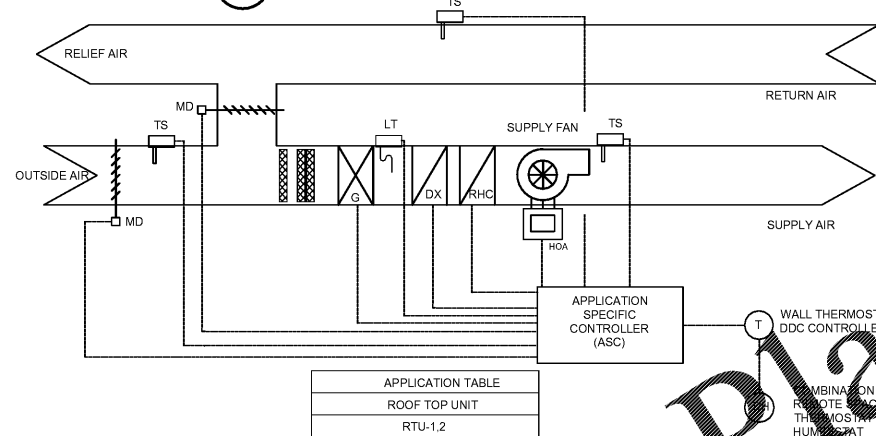
4 TYPICAL DUCT TAKE-OFF DETAIL  
N.T.S. 11.21.17



5 DIFFUSER CONNECTION DETAIL  
N.T.S. 11.21.17



6 LINEAR DIFFUSER DETAIL  
N.T.S. 11.21.17



SEQUENCE OF OPERATION

THE ROOF TOP UNIT SHALL BE CONTROLLED THROUGH THE ASC. THE SEQUENCE LISTED BELOW IS REVERSIBLE UNLESS NOTED OTHERWISE.

THE UNIT'S SUPPLY FAN SHALL BE ENERGIZED AND OPERATE CONTINUOUSLY; THE GAS FURNACE SHALL BE DE-ENERGIZED; THE OUTDOOR AIR, RETURN AIR, AND EXHAUST AIR DAMPERS SHALL BE OPENED TO THE MINIMUM VENTILATION POSITION.

IF HEATING IS REQUIRED, THE GAS FURNACE SHALL OPERATE AS REQUIRED TO MAINTAIN THE ROOM TEMPERATURE SET POINT. SHOULD THE HEAT FAIL TO OPERATE CORRECTLY, AFTER 3 CONSECUTIVE FAILS THE UNIT WILL BE DE-ENERGIZED. THE OUTDOOR DAMPER WILL CLOSE, THE FAN WILL BE DE-ENERGIZED, AND THE HEAT WILL BE DISABLED UNTIL RESET. A SERVICE REQUIRED SYMBOL WILL BE DISPLAYED ON THE SPACE THERMOSTAT.

IF COOLING IS REQUIRED AND THE RETURN ENTHALPY IS HIGHER THAN OUTDOOR ENTHALPY (ECONOMIZER MODE), THE MECHANICAL COOLING SHOULD BE DE-ENERGIZED AND THE OUTDOOR DAMPER SHALL MODULATE TO MAINTAIN A 53°F - 55°F SUPPLY AIR TEMPERATURE. IF THE SPACE TEMPERATURE CONTINUES TO CLIMB, MECHANICAL COOLING SHOULD BE RE-ENERGIZED. THE FRESH AIR DAMPER SHOULD CONTINUE TO MODULATE TO MAINTAIN.

THE OUTSIDE AIR DAMPER WILL MODULATE TO THE MINIMUM VENTILATION POSITION SHOULD THE MIXED AIR/SUPPLY AIR TEMPERATURE DROP BELOW 40°F.

IF COOLING IS REQUIRED AND THE RETURN ENTHALPY IS LOWER THAN OUTDOOR ENTHALPY (MECHANICAL COOLING MODE), THE OUTDOOR DAMPER WILL REMAIN IN THE MINIMUM VENTILATION POSITION AND THE COMPRESSOR(S) SHALL OPERATE TO MAINTAIN THE COOLING SET POINT.

DEHUMIDIFICATION OPERATION - ON A CALL FROM THE SPACE HUMIDISTAT OF HIGH HUMIDITY, DEHUMIDIFICATION OPERATION SHALL ENERGIZE AND OPERATE.

COOLING SETPOINT  
SET TEMPERATURE TO 72°F AND LOCK IN THERMOSTAT.

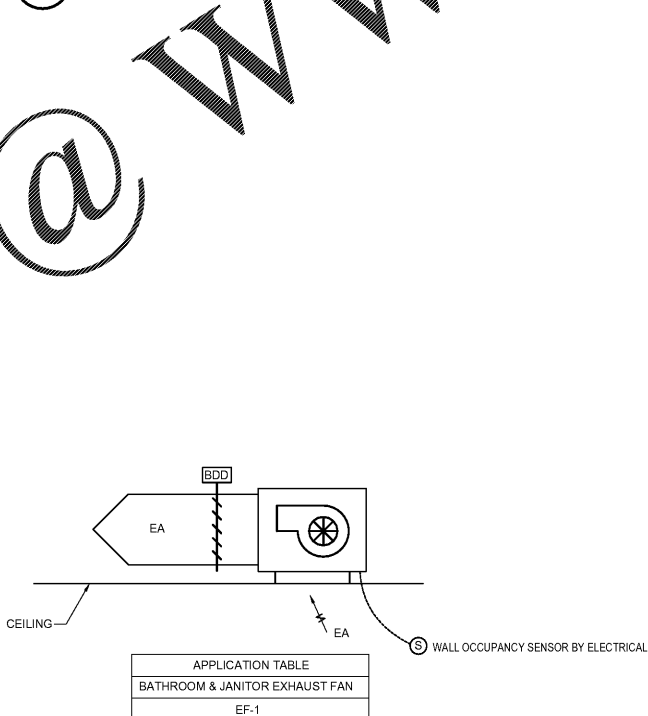
HEATING SETPOINT  
SET TEMPERATURE TO 68°F AND LOCK IN THERMOSTAT.

PROVIDE 2°F HIGH/LOW TEMPERATURE RANGE FOR BOTH COOLING AND HEATING SET POINTS.

DEHUMIDIFICATION SET POINT  
SET TO 50-52% RH AND LOCK IN THERMOSTAT.

NOTE:  
REFER TO PROJECT MANUAL FOR TRANE ZONE SENSOR CONFIGURATION GUIDE.

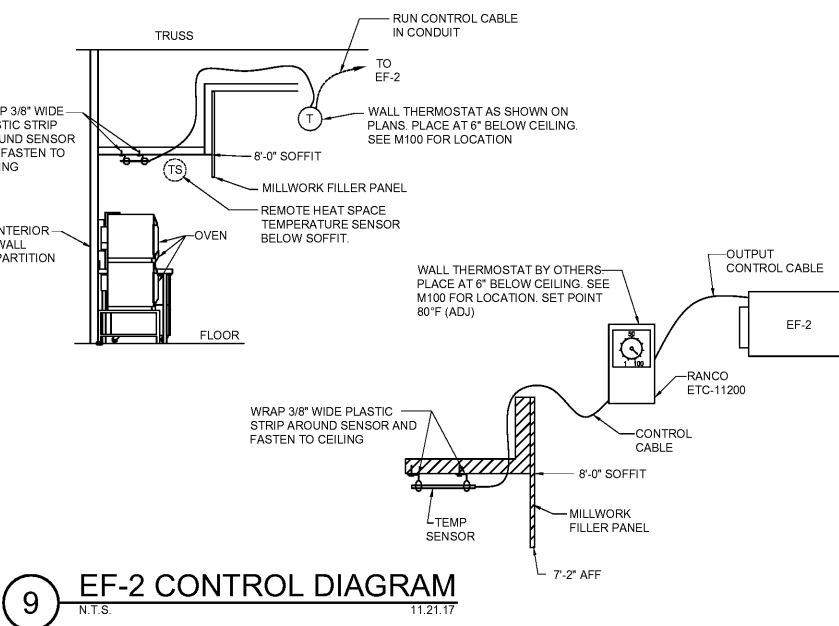
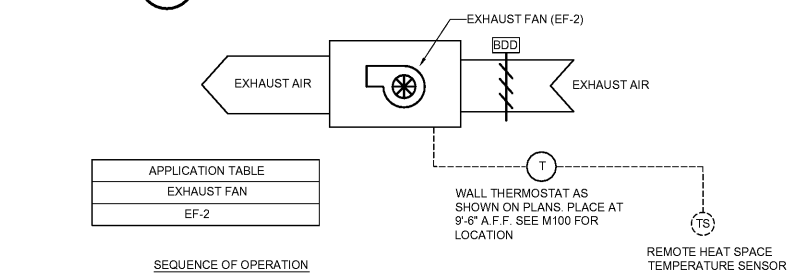
7 ROOFTOP UNIT CONTROL DIAGRAM  
N.T.S. 11.21.17



SEQUENCE OF OPERATION

THE EXHAUST FAN SHALL BE CONTROLLED BY WALL OCCUPANCY SENSOR PROVIDED BY ELECTRICAL. WHEN THE SWITCH IS IN THE "ON" POSITION, THE FAN SHALL BE ENERGIZED AND RUN CONTINUOUSLY. WHEN THE SWITCH IS IN THE "OFF" POSITION THE FAN SHALL RUN FOR ANOTHER 10 MIN. (ADJ.) BEFORE IS DE-ENERGIZED.

8 BATHROOM EXHAUST FAN CONTROL DIAGRAM  
N.T.S. 11.21.17



9 EF-2 CONTROL DIAGRAM  
N.T.S. 11.21.17

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**Cumberland Farms**  
SUNRISE & 4TH  
FORT LAUDERDALE, FL 33304  
JOB NUMBER: 41-17-00410

ISSUE BLOCK

DESCRIPTION	DATE
90% CDs	05/10/19
100% Set	06/14/19
90% AIM4.0	08/14/19
100% AIM4.0	09/11/19

CHECKED BY: BRT  
DRAWN BY: BRT

PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
72212

2019.08.11 21:30:11-05'00"  
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HVAC DETAILS AND SEQUENCE OF CONTROLS