



HVAC SYSTEM
N-C-A CONSULTANTS GROUP
NATIONAL CORPORATE ACCOUNT SERVICES, INC.
DRAWINGS SHOWN ARE FOR PROTOTYPICAL CONSIDERATIONS ONLY... FOR SITE-SPECIFIC DESIGN, ARCHITECTS SHALL REFLECTED CEILING PLAN, ELEVATIONS, KITCHEN PLANS, FLOOR PLAN, SITE PLAN, EXTERIOR ELEVATIONS, AND ROOF STRUCTURAL PLAN... TO CONTACT THE NCA CONSULTANTS BY PHONE, CALL TOLL-FREE (877) 530-0078.

REFLECTED CEILING PLAN - HVAC
1/4"=1'-0"

VENTILATION CALCULATION

CAFETERIA, FAST FOOD, BREATHING ZONE OUTDOOR AIRFLOW
ZONE FLOOR AREA: 865 SQ FT
OCCUPANT DENSITY: 100 PEOPLE PER 1,000 SQ FT
PEOPLE OUTDOOR AIRFLOW RATE: 7.5 CFM PER PERSON
AREA OUTDOOR AIRFLOW RATE: 0.18 CFM PER SQ FT

Vbz = Rp Pz + Ra Rz
Vbz = 7.5 (100/1,000 X 865) + (0.18 X 865)
Vbz = 649 CFM + 156 CFM = 805 CFM

RTU-1: OUTDOOR AIR REQUIRED = 805 CFM
OUTDOOR AIR PROVIDED = 850 CFM

RESTROOM EXHAUST
70 CFM PER WATER CLOSET OR URINAL
(2) WATER CLOSETS X 70 CFM = 140 CFM

EF-4: EXHAUST REQUIRED = 140 CFM
EXHAUST PROVIDED = 150 CFM

KITCHEN EXHAUST
0.70 CFM PER SQUARE FOOT
0.70 X 990 SF = 693 CFM

EF-1, EF-2, EF-3: EXHAUST REQUIRED = 693 CFM
EXHAUST PROVIDED = 2,300 CFM

KEYED NOTES

- 1. PROVIDE TYPE-I HOOD WITH 16 GAUGE BLACK IRON GREASE EXHAUST DUCT CONTINUOUSLY WELDED LIQUID TIGHT WITH CLEAN OUTS AND ACCESS PANELS INSTALLED AT ANY REQUIRED FIELD OFFSETS...
2. T-2900 PROGRAMMABLE THERMOSTAT WITH LOCKING COVER...
3. REMOTE SENSOR 86" A.F.F. ON WALL NEAR LOCATION INDICATED THIS SHEET...
4. 10X10 PLENUM DROP WITH END CAP DOWN FROM EF-4 CURB...
5. SHIM CURBS ON ROOF IN ORDER TO MAKE TOP OF CURBS LEVEL...
6. MASTER HVAC CONTROL PANEL FOR COMPLIANCE WITH NFPA-98...

- 7. FIRE ALARM CONTROL PANEL
8. HOOD FIRE SUPPRESSION TANKS
9. HOOD FIRE SUPPRESSION PULL STOPS

PACKAGE ROOFTOP UNIT SCHEDULE (RTU)

Table with columns: TAG, MANUFACTURER, MODEL, LOCATION, DIMENSIONS, TYPE OF HEAT, TOTAL COOLING CAPACITY, SENSIBLE COOLING CAPACITY, ENTERING AIR CONDITIONS, ENTERING AIR DB TEMPERATURE, SUPPLY AIR CFM, OUTDOOR AIR CFM, EXTERNAL STATIC PRESSURE, RHP - MEDIUM STATIC MOTOR, E.P.R., ELECTRICAL HEAT KW, UNIT WEIGHT, ELECTRICAL REQUIREMENT, MINIMUM CIRCUIT AMPERAGE, MAXIMUM OVER CURRENT PROTECTION, ACCESSORIES.

- 1. 100% ECONOMIZER WITH BAROMETRIC RELIEF "OCCUPIED" SETTING SHALL BE AS PER AIR BALANCE SCHEDULE & "UNOCCUPIED" SHALL BE FULLY SHUT...
2. NCA PLENUMIZED CURBS TO ORDER CALL TOLL-FREE (877) 530-0078...
3. ONE YEAR COMPLETE PARTS AND LABOR WARRANTY...
4. ADDITIONAL FOUR YEAR PARTS WARRANTY COVERING COMPRESSORS...
5. SMOKE DETECTOR (SEE HVAC ROOF PLAN, SHEET M-2)...
6. AQUAGUARD AG-3180E MOISTURE SENSOR FOR PRIMARY PAN...
7. RTU-2&3 TO BE PROVIDED HOT GAS RE-HEAT COIL WITH HUMIDISTAT SET @ 55% RH...

AIR BALANCE SCHEDULE

Table with columns: TAG, SUPPLY AIR, OUTSIDE AIR, RETURN AIR, EXHAUST AIR, BLDG. PRESSURE, OUTSIDE AIR. Includes rows for RTU-1, RTU-2, RTU-3, EF-1, EF-2, EF-3, EF-4, and a TOTAL row.

DIFFUSER SCHEDULE

Table with columns: SYM, TYPE, MODEL #, FINISH, BOOT SIZE, OPENING SIZE, QTY. Lists various diffuser models and their specifications.

FAN SCHEDULE

Table with columns: UNIT NUMBER, AREA SERVED, MANUFACTURER, MODEL NUMBER, CFM, STATIC PRESSURE, FAN H.P., RPM, ELECTRICAL SERVICE, NCA CURB SIZE, ACCESSORIES. Lists fan specifications for different units.

HVAC EQUIPMENT PACKAGE

PLAN AND SPECIFICATIONS AS PER P.E. SEAL
POPEYES LOUISIANA KITCHEN HAS DESIGNATED THE NCA GROUP AS THE NATIONAL ACCOUNT VENDOR FOR THE HVAC EQUIPMENT PACKAGE... FOR COMPLETE INFORMATION AND PRICING ON THE FOLLOWING PACKAGE OF EQUIPMENT AND ACCESSORIES CONTACT THE NCA GROUP MARKETING DEPARTMENT TOLL-FREE AT (877) 530-0078.

HEATING COOLING EQUIPMENT PACKAGE
INCLUDES ALL ROOFTOP AIR CONDITIONING EQUIPMENT WITH ALL ACCESSORIES AS SPECIFIED ON THESE PLANS.
RESTROOM FAN PACKAGE
INCLUDES THE RESTROOM FAN WITH ALL ACCESSORIES AS SPECIFIED ON THESE PLANS.

AIR DEVICE PACKAGE
INCLUDES ALL ALUMINUM GRILLES, REGISTERS AND DIFFUSERS PER PLANS. SQUARE TO ROUND TRANSITIONS PROVIDED WHERE REQUIRED.
CURB PACKAGE
INCLUDES ONE-PIECE, FULLY WELDED NCA PLENUMIZED ROOF CURBS FOR ALL ROOF MOUNTED HEATING/COOLING EQUIPMENT, AND RESTROOM FAN CURB.

CONTROLS PACKAGE
INCLUDES PRESET DIGITAL THERMOSTATS, THERMOSTAT WIRE, LOCKING COVERS, SMOKE DETECTORS AND AUDIBLE-VISUAL DEVICES; ALSO MANUAL ON-OFF PANEL AND MASTER CONTROL PANEL. SEE ELECT. SHEETS FOR PANEL DIAGRAM.
AIR BALANCE INSTRUCTIONS
INSTALLING CONTRACTOR IS RESPONSIBLE FOR HAVING A CERTIFIED, INDEPENDENT A.A.B.C. OR N.E.A.B. CERTIFIED TEST AND BALANCE COMPANY PERFORM A TEST AND BALANCE ON THE EXHAUST AND VENTILATION SYSTEM... CONTRACTOR SHALL PROVIDE WRITTEN REPORT CERTIFYING SYSTEM BALANCE TO NCA CONSULTANTS, ARCHITECT, AND OWNER.

PLENUMIZED CURB INSTALLATION NOTES

- 1. CAREFULLY LOCATE AND MARK ROOF CURB LOCATIONS SO THAT DUCT WORK CAN BE INSTALLED IN THE APPROXIMATE LOCATIONS AS SHOWN BY THE FLOOR PLAN...
2. MARK THE EXACT LOCATION OF EACH ROOF CURB...
3. GENERAL CONTRACTOR SHALL CUT ROOF DECKING MATERIAL...
4. WITH ROOF CURB UPSIDE DOWN (SOLID METAL BOTTOM UP)...
5. CUT ALL DUCT TAPS INTO THE BOTTOM PANELS...
6. INSTALL DUCT TAP FITTINGS AND MANUAL DAMPERS INTO THE OPENINGS PREVIOUSLY CUT...
7. FLATTEN TAB OF START COLLAR...
8. APPLY DUCT SEALER TO OPEN END OF COLLAR...
9. SLIDE OUTER INSULATION SLEEVE OF FLEX TIGHT TO BOTTOM OF CURB...
10. TURN CURB RIGHT SIDE UP...
11. GENERAL CONTRACTOR OR ROOFING CONTRACTOR SHALL FLASH AND ROOF IN THE CURB AS DETAILED ON THE DRAWINGS...
12. INSIDE BUILDING, THE DUCT RUNS SHALL BE INSTALLED FROM THE TAPS TO THE DIFFUSER LOCATIONS AS SHOWN ON THE PLANS...
13. NOTE: IF NECESSARY, FLEX DROPS MAY BE CONNECTED TO TAPS AFTER CURB HAS BEEN INSTALLED...

CONTRACTORS NOTES

HVAC CONTRACTOR
1. THE HVAC CONTRACTOR SHALL INSTALL THE TYPE I FRYER HOODS LEVEL & AT THE PROPER LOCATION...
2. SEE NCA PACKAGE SCHEDULE NOTES FURNISHED ITEMS FOR HVAC INSTALLATION...
3. ALL NCA PROVIDED ROOF CURBS SHALL BE FABRICATED FROM 18 GA. G-90 MTL...
4. SHIMS SHALL BE PROVIDED BY HVAC CONTRACTOR BETWEEN THE ROOF DECK AND THE CURBS...
5. ALL FLEX DUCT SHALL BE U.L. LISTED, R-8 BENEATH THERMAL BLDG. ENVELOPE & R-8 WHEN CEILING INSULATION IS USED...

6. ALL METAL DUCT AND AIR DISTRIBUTION DEVICES SHALL BE INSULATED WITH R-6, 2" X .75 DENSITY FOIL-BACKED INSULATION...
7. ALL DUCTWORK SHALL BE INDEPENDENTLY HUNG FROM STRUCTURAL MEMBERS.
8. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED, SEALED, AND EXTERNALLY INSULATED PER SMACNA LOW-VELOCITY DUCT MANUAL (LATEST ISSUE)...
9. UNLESS OTHERWISE NOTED, ALL SUPPLY TAKEOFFS SHALL HAVE A MANUAL VOLUME CONTROL DAMPER...

10. THE HVAC CONTRACTOR SHALL COORDINATE DIFFUSER LOCATIONS ON SITE WITH THE MOST RECENT REFLECTED CEILING PLAN.
11. THE HVAC CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE COVERING A ONE-YEAR PERIOD FOR ALL HVAC EQUIPMENT AND PROVIDE AN ADDITIONAL FOUR-YEAR PERIOD FOR THE COMPRESSORS...

12. UPON COMPLETION OF PROJECT, THE HVAC CONTRACTOR IS TO PROVIDE A CERTIFIED TEST AND BALANCE, AND A WRITTEN REPORT TO NCA CONSULTANTS...
13. THE HVAC CONTRACTOR IS TO MAKE ALL LOW-VOLTAGE WIRING FINAL CONNECTIONS FOR ALL HVAC EQUIPMENT INCLUDING TEMPERATURE CONTROLS, RTUS, AND SMOKE DETECTORS.

GENERAL CONTRACTOR
1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO RECEIVE, OFFLOAD, AND STORE ALL HVAC MATERIALS WHICH ARRIVE AT THE JOB SITE...
2. ACCURATE MEASUREMENTS SHALL BE USED WHEN LOCATING GREASE TRAP EXHAUST FAN ROOF PENETRATIONS...
3. ACCURATE MEASUREMENTS SHALL BE USED WHEN LOCATING GREASE TRAP EXHAUST FAN ROOF PENETRATIONS...
4. ADDITIONAL FOUR YEAR PARTS WARRANTY COVERING COMPRESSORS...
5. SMOKE DETECTOR (SEE HVAC ROOF PLAN, SHEET M-2)...
6. AQUAGUARD AG-3180E MOISTURE SENSOR FOR PRIMARY PAN...
7. RTU-2&3 TO BE PROVIDED HOT GAS RE-HEAT COIL WITH HUMIDISTAT SET @ 55% RH...

NOTE: COORDINATE RTU PLACEMENT ON SITE PRIOR TO SETTING EQUIPMENT. IF ADJUSTMENT IS NECESSARY MAINTAIN FRESH AIR INTAKE CLEARANCES.
8. RTU EVAPORATOR FANS SHALL RUN CONTINUOUSLY.
FRAME IS AN ACCEPTABLE ALTERNATE - USE HIGH-EFFICIENCY MODELS OF EQUAL TONNAGE AND HEAT CAPACITIES. ENSURE THAT REQUIRED CLEARANCES ARE MAINTAINED BETWEEN THE OUTSIDE AIR INTAKES AND ALL EXHAUST FANS, VTRS, ETC.

ELECTRICAL CONTRACTOR
1. THE ELECTRICAL CONTRACTOR SHALL ROUTE HIGH & LOW VOLTAGE WIRING CONTROL WIRING, LOW VOLTAGE WIRING SHALL BE FURNISHED BY THE HVAC CONTRACTOR...
2. THE ELECTRICAL CONTRACTOR SHALL USE A MINIMUM OF 4"-6" SEALTITE FLEXIBLE CONDUIT WHEN WIRING KITCHEN HOOD EXHAUST FANS ON ROOF SO THAT FANS MAY BE REMOVED FROM CURBS AND PLACED ON ROOF FOR CLEANING EXHAUST DUCTWORK...
3. FOR EACH UNIT, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ONE SINGLE-GANG RECEPTACLE TEST STATION FOR THE T-STAT, AND ONE SINGLE-GANG RECEPTACLE TEST STATION FOR THE ANNUNCIATOR, WITH GREEN AND RED LIGHT INDICATORS...
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL INTERLOCKING DEVICES REQUIRED BETWEEN THE HOODED APPLIANCES & HVAC TO COMPLY WITH NFPA-98...
5. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AN INTERLOCKING REQUIRED PER NFPA98 AND LOCAL CODES...
6. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AN ADDITIONAL INTERLOCKING REQUIRED PER NFPA98 AND LOCAL CODES.

PLUMBING CONTRACTOR
1. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL CONDENSATE DRAINAGE DOWNSTREAM OF P-TRAPS FOR A/C EQUIPMENT & DISPOSE OF CONDENSATE AT AN APPROVED LOCATION...
2. THE PLUMBING CONTRACTOR SHALL PROVIDE NATURAL OR LP GAS SUPPLY TO ROOF TOP UNITS WHEN USING GAS HEAT...
3. THE PLUMBING CONTRACTOR IS TO COORDINATE PLUMBING VENT STACKS AND WATER HEATER FLUES WITH OUTSIDE AIR INTAKES OF A/C UNITS...
4. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL FLUE GAS EXHAUST VENT FOR WATER HEATER, MAINTAIN 10'-0" MINIMUM CLEARANCE TO AIR INTAKES, OR PER LOCAL CODE...
5. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL FLUE GAS EXHAUST VENT FOR WATER HEATER, MAINTAIN 10'-0" MINIMUM CLEARANCE TO AIR INTAKES, OR PER LOCAL CODE...
6. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL FLUE GAS EXHAUST VENT FOR WATER HEATER, MAINTAIN 10'-0" MINIMUM CLEARANCE TO AIR INTAKES, OR PER LOCAL CODE...



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Table with columns: RELEASE, DATE. Shows release dates for sheets 1 through 6.

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