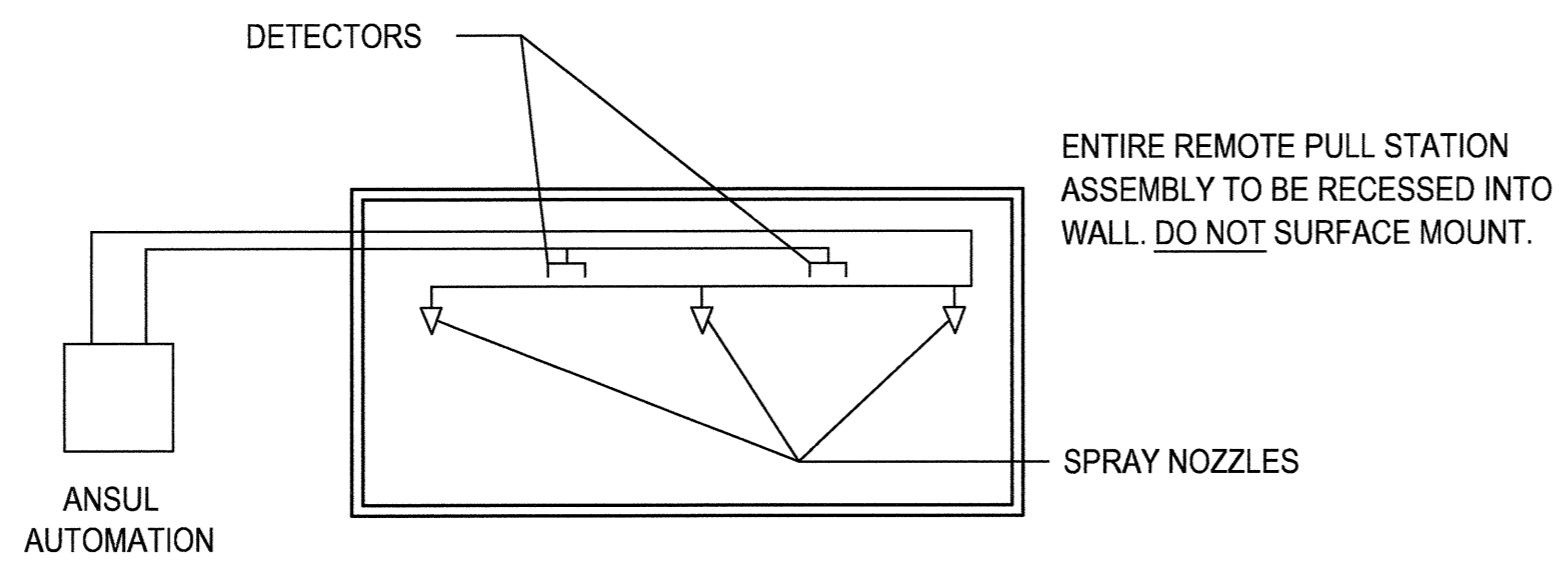


HOOD (20'-0")

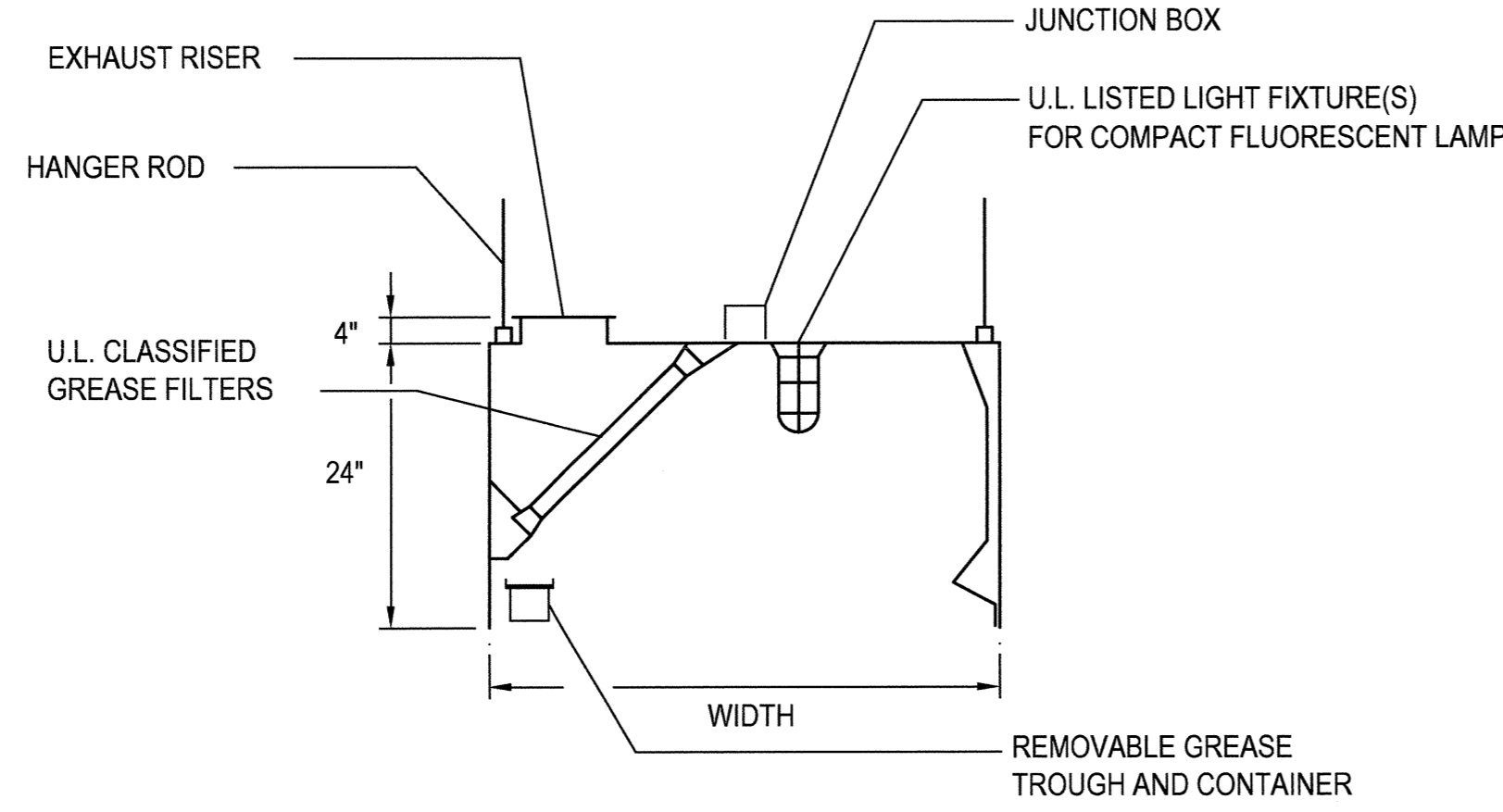
INTERIOR MTL.: 304 STAINLESS STEEL
EXTERIOR MTL.: 304 STAINLESS STEEL
LIGHTS: (6) COMPACT FLUORESCENT
FILTERS: ALUM BAFFLE UL/W MIN. BLANK OFFS
CFM EXHAUST: 3,500
MODEL: 6024 ND
TAG: H-1

11 PLAN VIEW - HOOD #1
SCALE: NONE

- NOTES:**
- MECHANICAL CONTRACTOR TO FURNISH AND INSTALL STAINLESS STEEL 18" AROUND HOODS ON WALLS AND CEILING.
 - HOODS SHALL BE U.L. LISTED WITH ANSUL FIRE SUPPRESSION SYSTEMS.



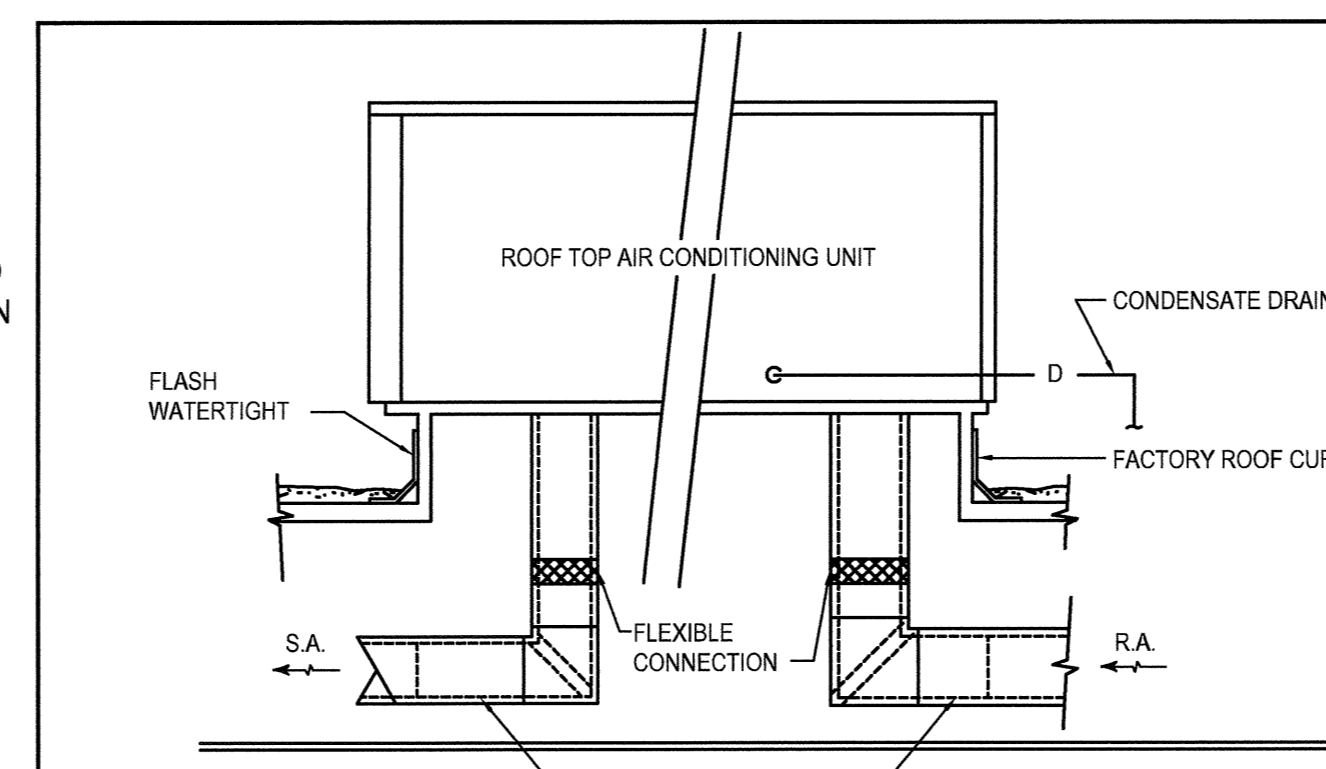
13 ELEVATION VIEW - ANSUL FIRE SUPPRESSION SYSTEM
SCALE: NONE



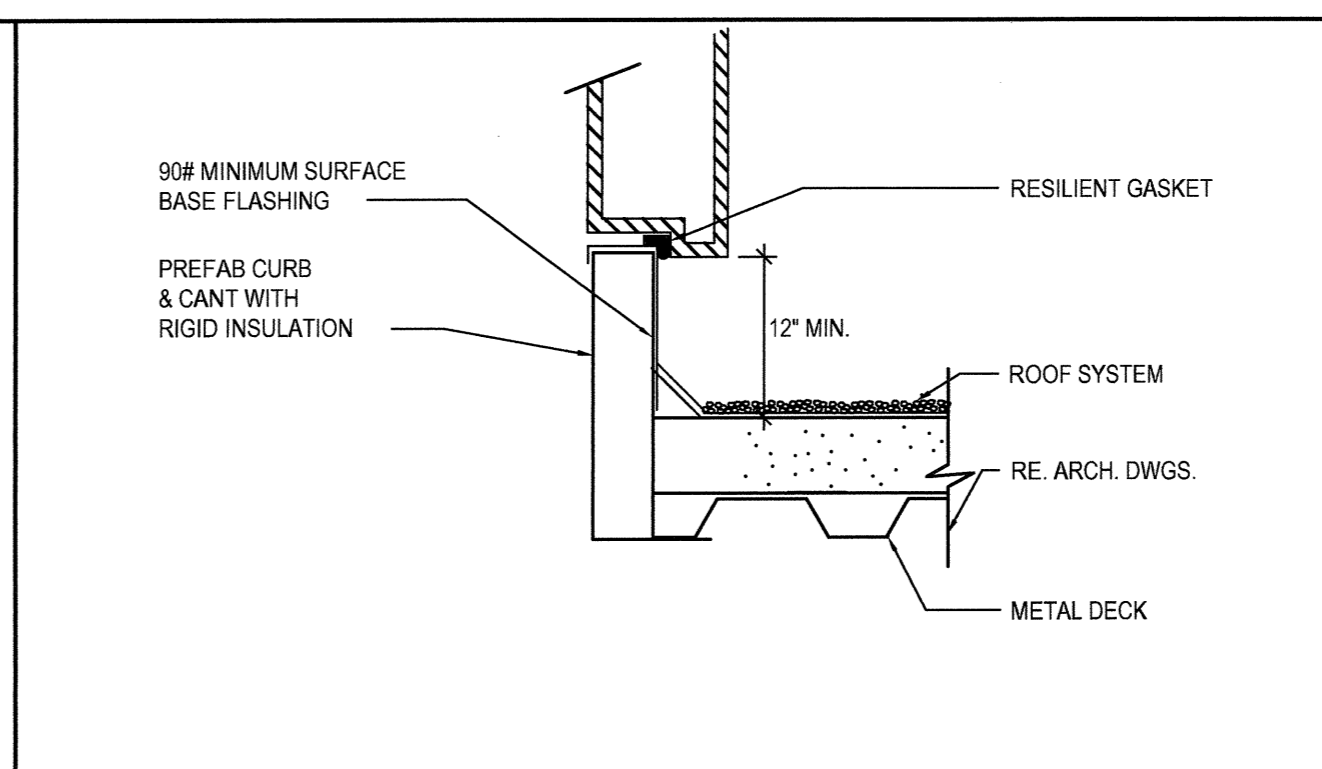
14 SECTION THROUGH HOOD #1 & 2
SCALE: NONE

HVAC CONTROL SEQUENCE

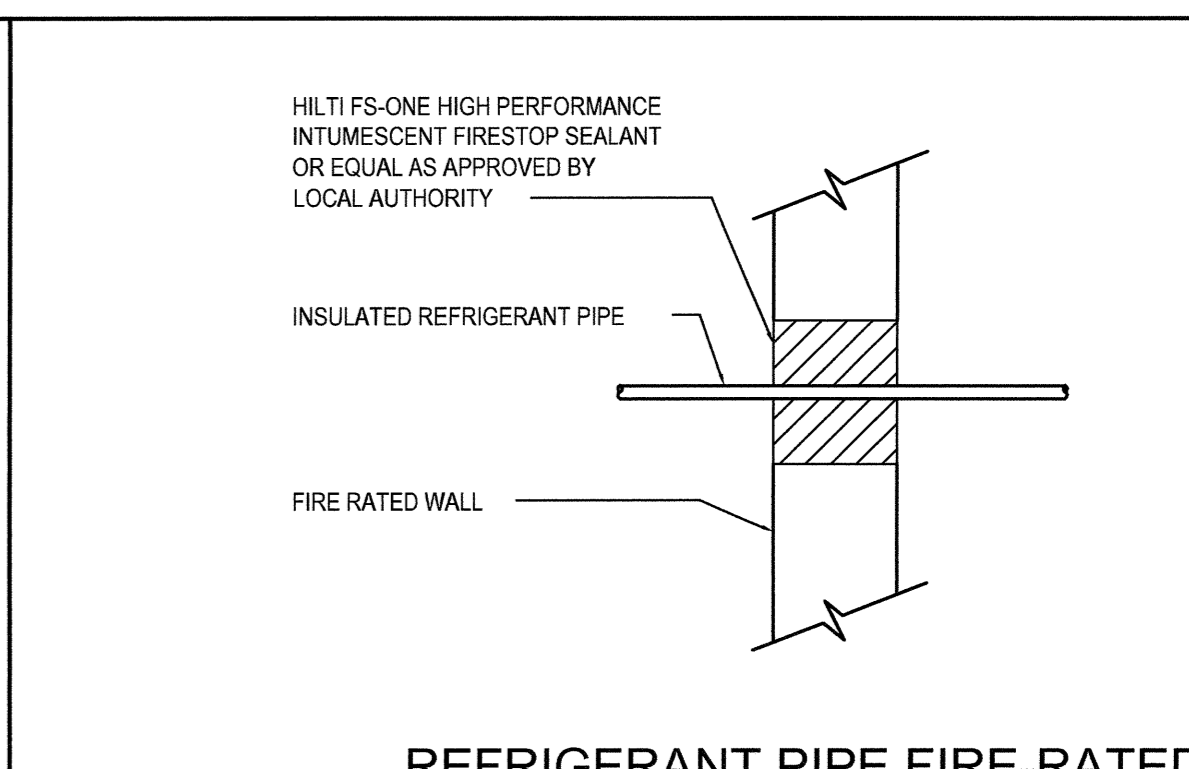
- 1ST STAGE COOLING - FIRST STAGE COOLING UNITS No. 1, 2, 3 & 6 (AC FANS LOW SPEED)
 - 2ND STAGE COOLING - FIRST STAGE COOLING UNIT No. 1, 2, 3 & 6 (AC FANS LOW SPEED)
FIRST STAGE COOLING UNITS No. 4 & 5
 - 3RD STAGE COOLING - SECOND STAGE COOLING UNIT No. 1, 2, 3 & 6 (AC FANS HIGH SPEED)
FIRST STAGE COOLING UNITS No. 4 & 5
 - 4TH STAGE COOLING - SECOND STAGE COOLING UNIT No. 1, 2, 3, 4, 5 & 6 (AC FANS HIGH SPEED)
 - 1ST STAGE HEATING - 100% RECLAIM VALVES "ON" FOR RECLAIM COIL (AC FANS LOW SPEED)
LOW AUXILIARY HEAT UNITS No. 2 & 5
 - 2ND STAGE HEATING - 100% RECLAIM VALVES "ON" FOR RECLAIM COIL (AC FANS HIGH SPEED)
HIGH AUXILIARY HEAT UNITS No. 2 & 5
 - 3RD STAGE HEATING - LOW AUXILIARY HEAT UNITS No. 1, 3 & 6
HIGH AUXILIARY HEAT UNITS No. 2 & 5
 - 4TH STAGE HEATING - HIGH AUXILIARY HEAT UNITS No. 1, 2, 3, 5 & 6
 - DEHUMIDIFICATION - COMPRESSORS STAGE ON AS REQUIRED BY HUMIDISTAT:
HEAT RECLAIM STAGES ON AS REQUIRED BY SPACE THERMOSTAT.
- NOTE: PROVIDE LOCKOUT RELAYS & CIRCUITS TO PREVENT AUXILIARY HEAT FROM ACTIVATING WHILE ANY COMPRESSORS ARE RUNNING.



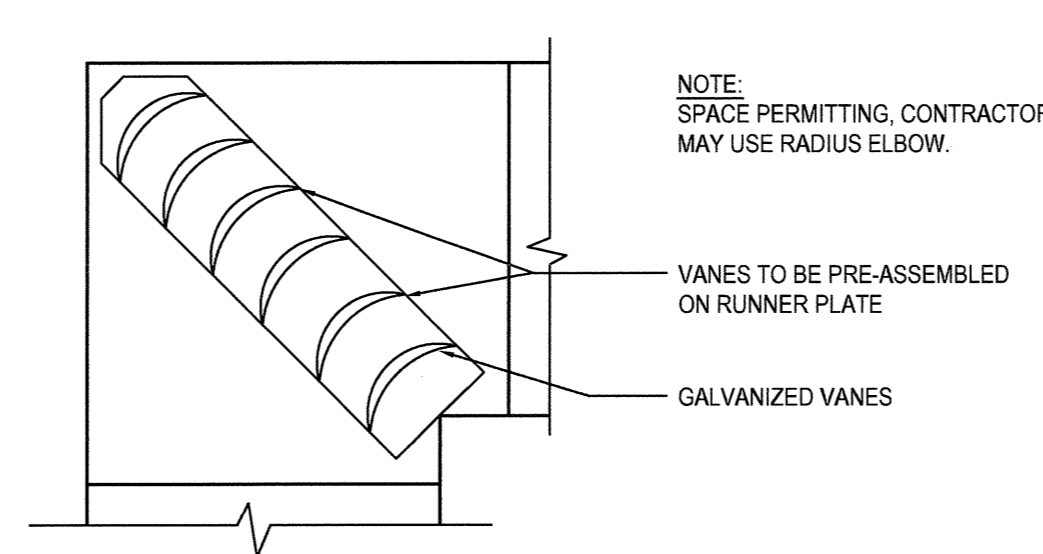
1 ROOFTOP UNIT DETAIL
SCALE: NONE



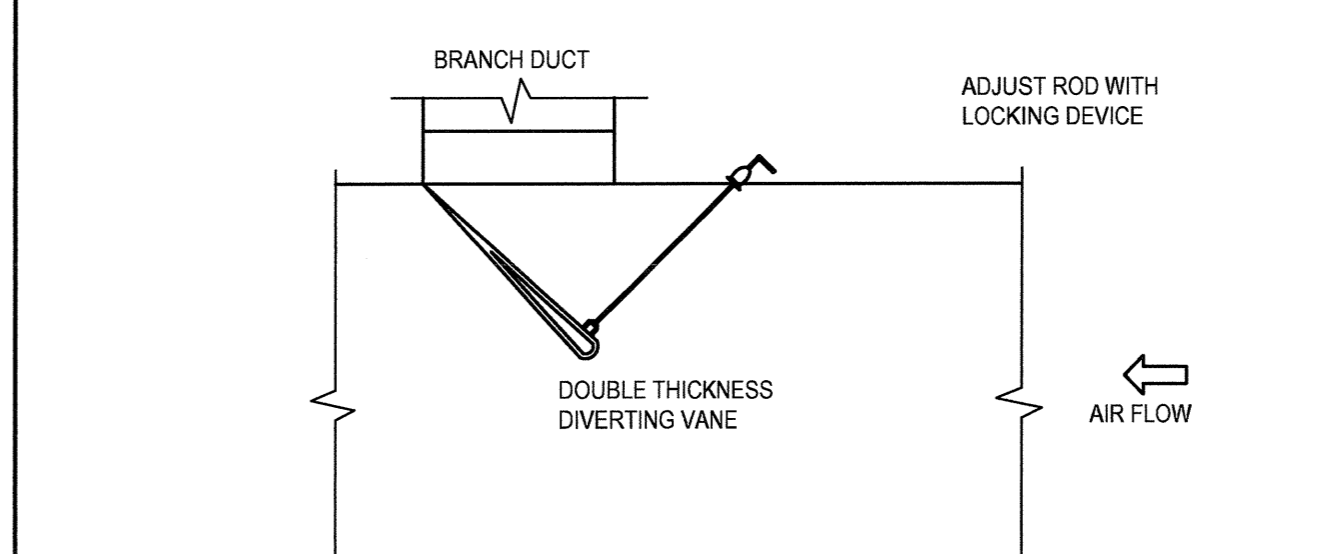
2 ROOFTOP UNIT CURB DETAIL
SCALE: NONE



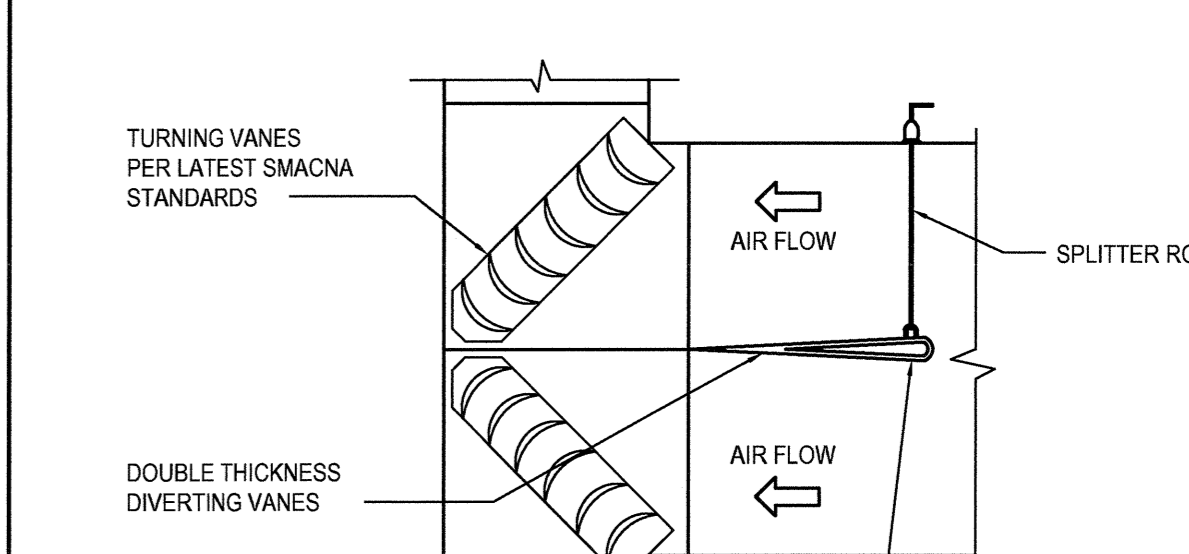
11 REFRIGERANT PIPE FIRE-RATED WALL PENETRATION DETAIL
SCALE: NONE



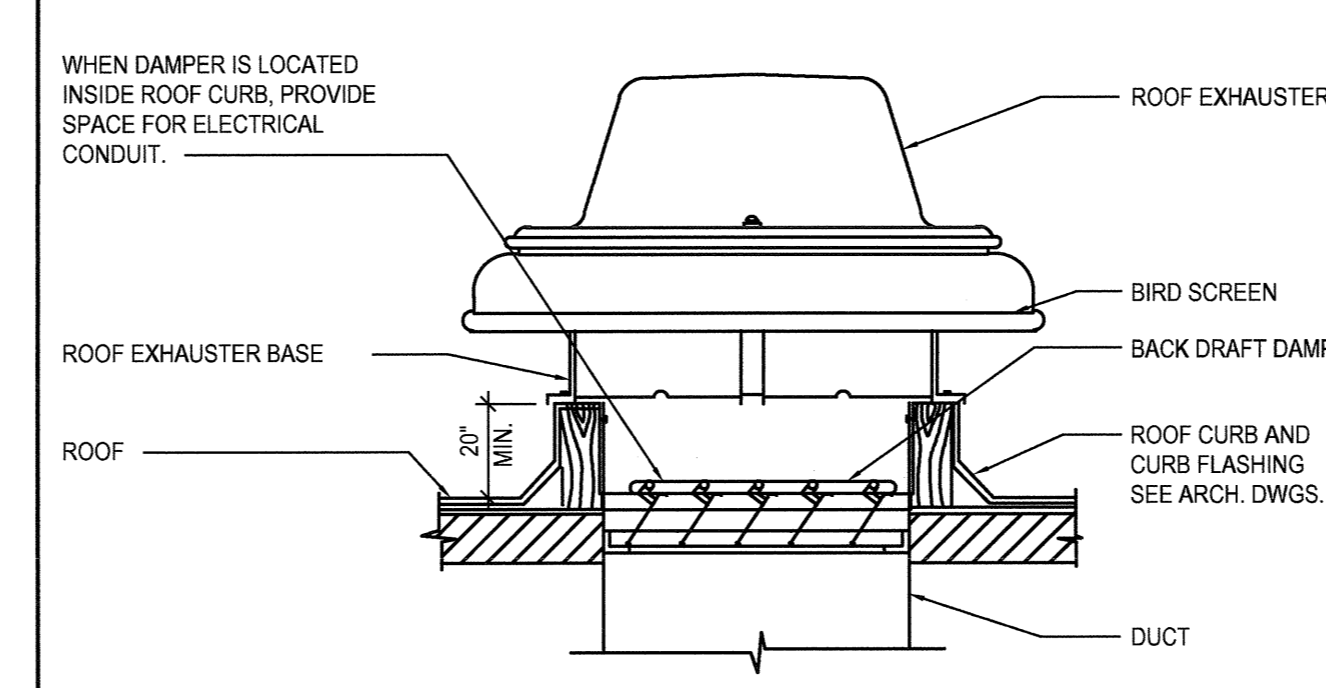
4 SQUARE ELBOW WITH DOUBLE THICKNESS VANES
SCALE: NONE



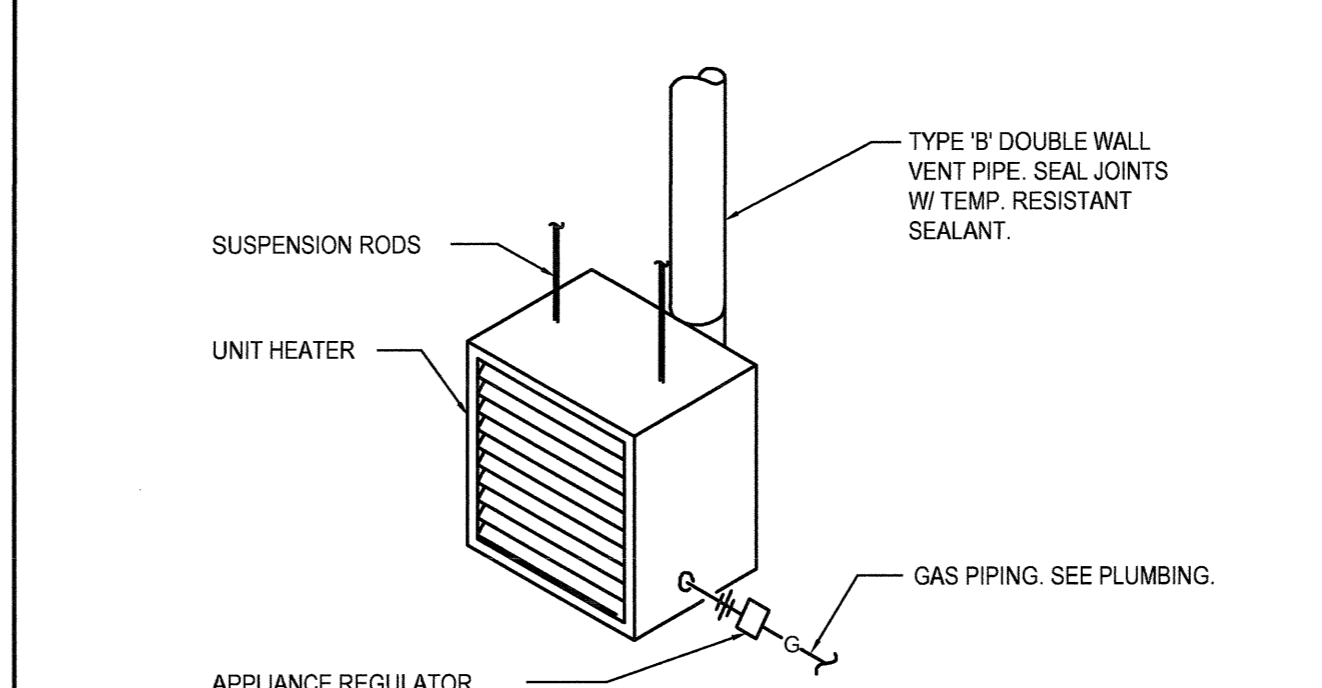
5 BRANCH DUCT SPLITTER DETAIL
SCALE: NONE



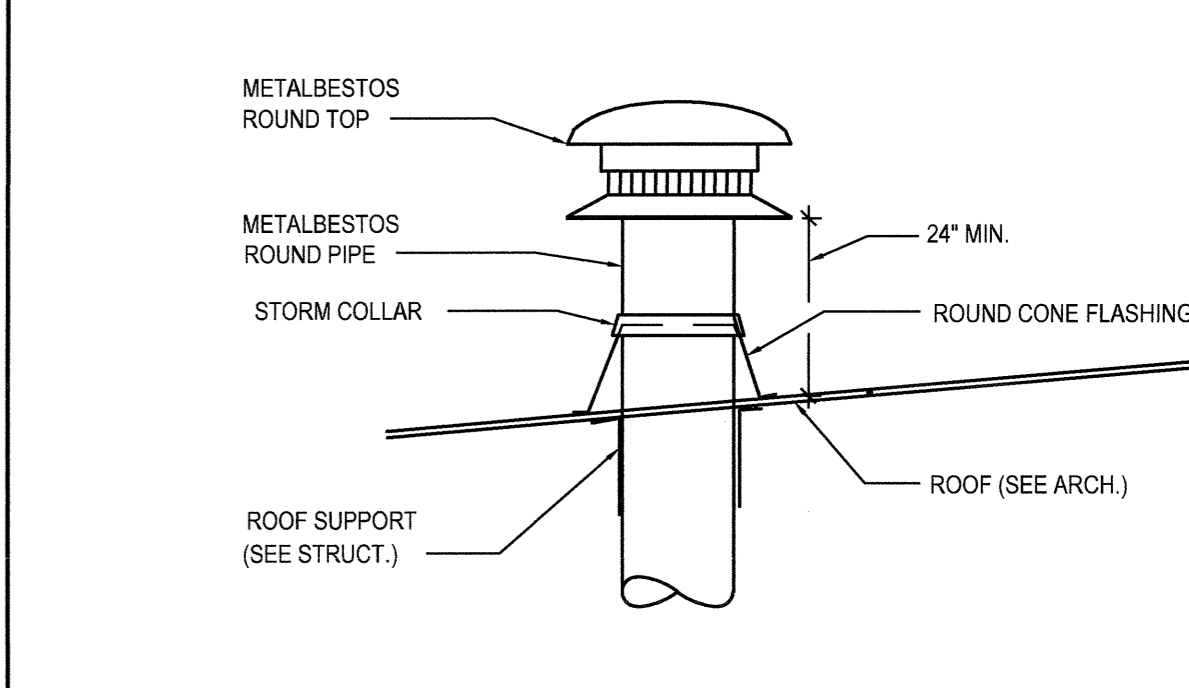
6 SPLITTER DAMPER DETAIL
SCALE: NONE



7 ROOF MOUNTED POWER EXHAUSTER
SCALE: NONE



8 GAS FIRED UNIT HEATER DETAIL
SCALE: NONE



9 GAS VENT DETAIL
SCALE: NONE

NOTES TO GENERAL CONTRACTOR REGARDING KROGER SUPPLIED, CONTRACTOR INSTALLED EQUIPMENT:

- CONTRACTOR TO OBTAIN APPROVAL OF ANY DELIVERY DATE CHANGES FROM KROGER PROJECT ENGINEER AND COORDINATE WITH VENDOR.
- CONTRACTOR TO RECEIVE EQUIPMENT, PROVIDE INSPECTION, AND NOTIFY VENDOR & KROGER PROJECT ENGINEER OF MISSING AND/OR DAMAGED MATERIALS WITHIN 48 HOURS AFTER DELIVERY (20 DAYS FOR CONCEALED DAMAGE).
- CONTRACTOR TO PROVIDE SAFE HARBORING, INSTALLATION, AND REMOVAL OF ANY SALVAGE MATERIALS.
- CONTRACTOR TO HANDLE ANY WARRANTY CLAIMS (PRIOR TO STORE OPENING) DIRECTLY WITH VENDOR.

CONTRACTOR TO COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.

RTU-6 Heat Reclaim Coil Design Information		
Store Number	SW-529	
Refrigeration Designer	E. Ruwe	
Date	1/5/2011	
Refrigeration Side Information		
Refrigeration Application Type	Protocol	
Number of Circuits	2	
Inlet Gas Temperature (°F)	160	
System		
Refrigerant	Protocol "B"	Protocol "C"
	R404a	R404a
Condensing Temp. (°F)	110	115
THR (MBH)	217.6	396.1
*Derated THR (MBH)	108.8	198.1
Mass Flow Rate (lb/Hr)	2520	5730
*Racks Derated to 60%		
*Sigs Derated to 80%		
*Protocols Derated to 50%		
Air Side Information		
Design CFM	10,500	
EAT (°F)	55.0	
LAT (°F)	81.9	
Total Reclaim Heat (Btu/Hr) = 306,850		

RTU-3 Heat Reclaim Coil Design Information		
Store Number	SW-529	
Refrigeration Designer	E. Ruwe	
Date	1/5/2011	
Refrigeration Side Information		
Refrigeration Application Type	Protocol	
Number of Circuits	1	
Inlet Gas Temperature (°F)	160	
System		
Refrigerant	Protocol "F"	
	R404a	
Condensing Temp. (°F)	115	
THR (MBH)	421.3	
*Derated THR (MBH)	210.7	
Mass Flow Rate (lb/Hr)	6120	
*Racks Derated to 60%		
*Sigs Derated to 80%		
*Protocols Derated to 50%		
Air Side Information		
Design CFM	5,000	
EAT (°F)	55.0	
LAT (°F)	93.8	
Total Reclaim Heat (Btu/Hr) = 210,650		

RTU-1 Heat Reclaim Coil Design Information		
Store Number	SW-529	
Refrigeration Designer	E. Ruwe	
Date	1/5/2011	
Refrigeration Side Information		
Refrigeration Application Type	Protocol	
Number of Circuits	1	
Inlet Gas Temperature (°F)	160	
System		
Refrigerant	Protocol "A"	
	R404a	
Condensing Temp. (°F)	110	
THR (MBH)	201.6	
*Derated THR (MBH)	100.8	
Mass Flow Rate (lb/Hr)	2160	
*Racks Derated to 60%		
*Sigs Derated to 80%		
*Protocols Derated to 50%		
Air Side Information		
Design CFM	5,000	
EAT (°F)	55.0	
LAT (°F)	73.6	
Total Reclaim Heat (Btu/Hr) = 100,800		

MECHANICAL NOTES

- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
- ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL AND SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS. DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
- INTERNALLY LINE THE FIRST 10' OF ALL SUPPLY AND RETURN DUCT WITH FIBERGLASS DUCT LINER PER SPECIFICATIONS. INSTALL IN ACCORDANCE WITH SMACNA DUCT LINER APPLICATION STANDARDS. ALL DUCTWORK DIMENSIONS ARE NET INSIDE DIMENSIONS. ALL DUCTWORK SHALL BE INSTALLED WITH TURNING VANES. ALL DUCTWORK ENCLOSED BY CEILING OR WALL SHALL BE INSULATED. EXPOSED DUCTWORK DOES NOT REQUIRE INSULATION.
- INSULATE ALL SUPPLY AND RETURN DUCT WITH SEMI RIGID BONDED FIBERGLASS HAVING A MINIMUM INSULATION VALUE OF R-6.
- PROVIDE CONDENSATE DRAINS FOR ALL EQUIPMENT REQUIRING THEM. ALL CONDENSATE DRAINAGE PIPING SHALL BE SCHEDULE 40 PVC WITH SOCKET JOINTS USING SOLVENT CEMENT. PIPING SHALL BE RUN FULL SIZE OF CONNECTION AND THE PIPING SHALL HAVE AN ADEQUATE AIR SEAL TRAP AT EACH UNIT CONNECTION WITH A VENT DOWNSTREAM OF THE TRAP.
- THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOW THE RELATIONSHIP BETWEEN EQUIPMENT AND CONNECTIONS. DO NOT SCALE THE DRAWINGS FOR EXACT SIZE OR LOCATIONS. BUILDING DIMENSIONS SHALL BE TAKEN FROM ARCH. PLANS AND EQUIPMENT DIMENSIONS SHALL BE TAKEN FROM CERTIFIED EQUIPMENT DATA.
- IN AIR SYSTEMS GREATER THAN 2000 CFM, SMOKE DETECTORS SHALL BE LOCATED IN THE RETURN AIR STREAM DOWNSTREAM OF THE AIR FILTERS AND AHEAD OF ANY BRANCH CONNECTIONS. SMOKE DETECTORS SHALL AUTOMATICALLY SHUT DOWN THE RTU WHEN HEAT WITHIN THE SYSTEM BECOMES EXCESSIVE, OR EXCEEDS 185°.
- ALL FANS OF 2000 CFM OR MORE SHOULD HAVE A MEANS OF AUTOMATIC SHUTDOWN.
- ROOFTOP UNITS TO HAVE FACTORY MOUNTED FUSED DISCONNECT SWITCH. MAY HAVE NON-FUSED DISCONNECT SWITCH IF APPROVED BY LOCAL AUTHORITIES.
- CONTRACTOR TO COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
- COORDINATE THE LOCATION OF ALL PENETRATIONS OF THE STRUCTURE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- EXACT LOCATION OF ALL CEILING DIFFUSERS TO BE COORDINATED WITH LIGHTING LAYOUT AND REFLECTED CEILING PLAN.
- ALL FANS 1/8 H.P. AND ABOVE SHALL HAVE FUSED DISCONNECT SWITCH MOUNTED AT THE FAN. MAY BE EQUIPPED WITH NON-FUSED DISCONNECT SWITCH IF APPROVED BY LOCAL AUTHORITIES.
- PROVIDE TYPE B DOUBLE WALL FLUES FROM OVEN THRU ROOF TO BREXER® CAP. SIZE AS REQUIRED. COORDINATE ROOF PENETRATIONS FOR DELIBERATELY OVER VENTS WITH THE FINAL LOCATION OF THE OVEN. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO INSTALL THE VENTS AND MAKE ALL FINAL CONNECTIONS.
- COORDINATE WITH KROGER ENGINEER FOR EXACT LOCATION OF DANFOSS CONTROL PANEL.
- ALL RTUS TO BE CONTROLLED BY DANFOSS ENERGY MANAGEMENT SYSTEM.
- ALL DUCTWORK TO BE MOUNTED TIGHT TO BAR JOISTS UNLESS OTHERWISE NOTED.
- CONDENSATE DRAIN INSULATION: INSULATE ALL HORIZONTAL CONDENSATE DRAIN PIPING WITHIN THE BUILDING WITH 3/8" WALL THICKNESS ARMAFLEX TYPE INSULATION.
- MOUNT THERMOSTATS AT 4' ± F.F. UNLESS OTHERWISE NOTED. THERMOSTATS LOCATED ON AN OUTSIDE WALL SHALL BE MOUNTED IN AN INSULATED WARE.
- PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY, RETURN AND EXHAUST SYSTEMS WHERE BRANCHES LEAD FROM LARGE DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL AT A MINIMUM OF TWO DUCT WIDTHS FROM BRANCH TAKEOFF.
- PROVIDE TURNING VANES IN ALL RECTANGULAR 90 DEGREE MITERED ELBOWS.

ROBERTSON LOJA ROOF ARCHITECTS & ENGINEERS
Texas Firm Registration Number: F-1569
3460 Preston Road, Suite 1000, Dallas, TX 75245
770-424-2600 • Fax: 972-319-0745

SCOTT P. BUCHHEIMER
Professional Engineer
No. 99158
9/13/11

Kroger

Kroger SW-529
4241 Capital Avenue
Dallas, TX 75204
Southwest Kroger
19245 David Memorial Drive
Shenandoah, TX

PREVISIONS

DATE
07-20-11

PROJECT NUMBER
10-272

SHEET NUMBER
M3.1

OF 4

