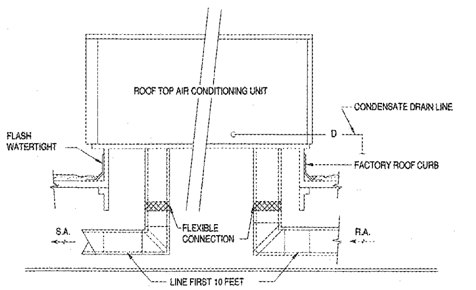
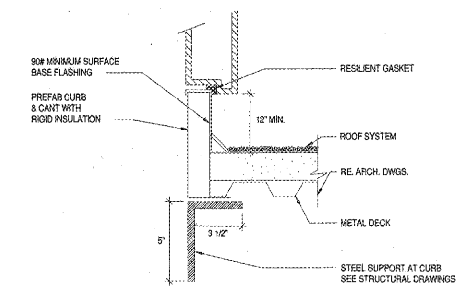
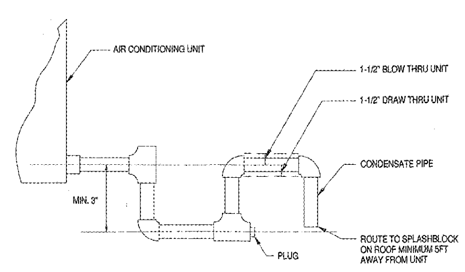


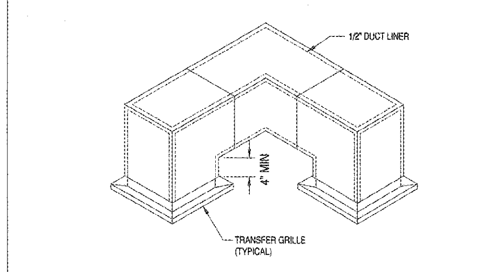
1 / M3.1 **ROOFTOP UNIT DETAIL**
SCALE: NONE



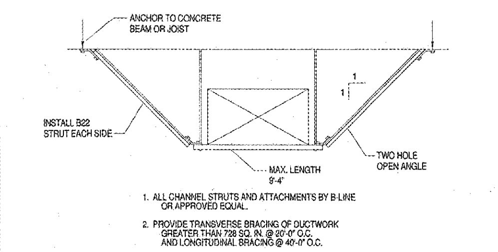
2 / M3.1 **ROOFTOP UNIT CURB DETAIL**
SCALE: NONE



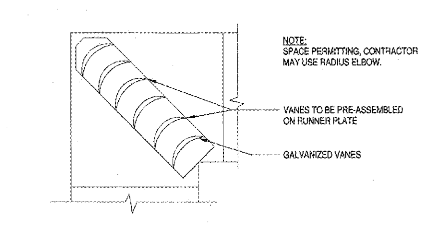
3 / M3.1 **CONDENSATE TRAP DETAIL**
SCALE: NONE



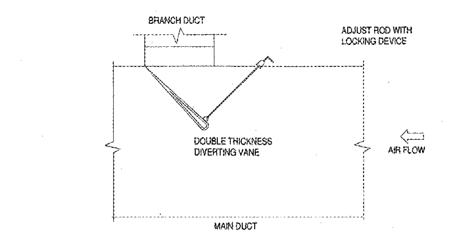
4 / M3.1 **TRANSFER DUCT DETAIL**
SCALE: NONE



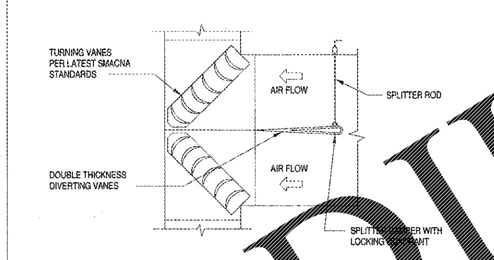
5 / M3.1 **SUSPENDED DUCTWORK DETAIL**
SCALE: NONE



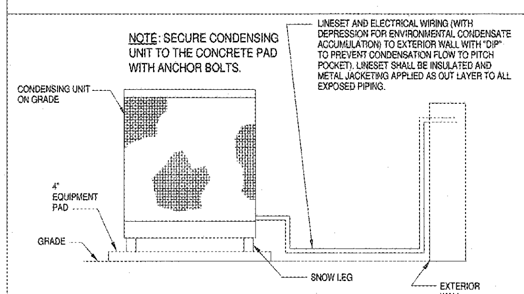
6 / M3.1 **SQUARE ELBOW WITH DOUBLE THICKNESS VANES**
SCALE: NONE



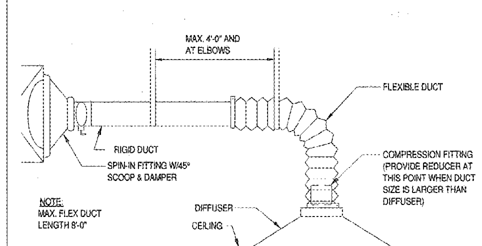
7 / M3.1 **BRANCH DUCT SPLITTER DETAIL**
SCALE: NONE



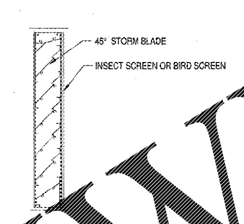
8 / M3.1 **SPLITTER DAMPER DETAIL**
SCALE: NONE



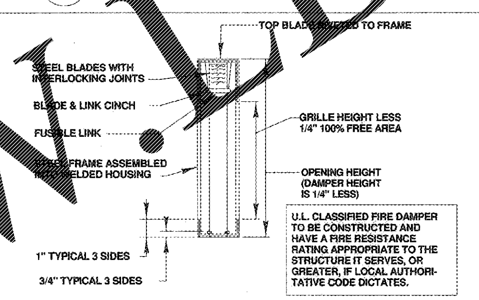
9 / M3.1 **CONDENSING UNIT DETAIL**
SCALE: NONE



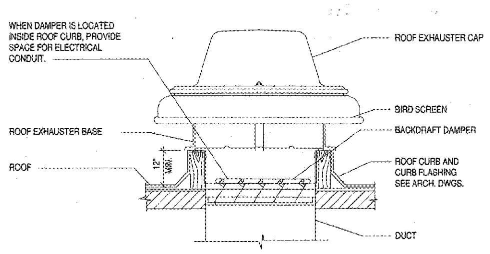
10 / M3.1 **DIFFUSER RUNOUT DETAIL**
SCALE: NONE



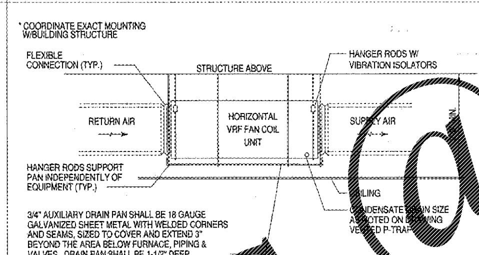
11 / M3.1 **STAIONARY LOUVER DETAIL**
SCALE: NONE



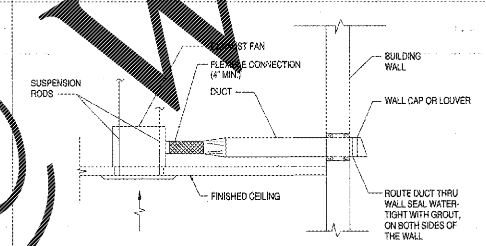
12 / M3.1 **FIRE DAMPER DETAIL**
SCALE: NONE



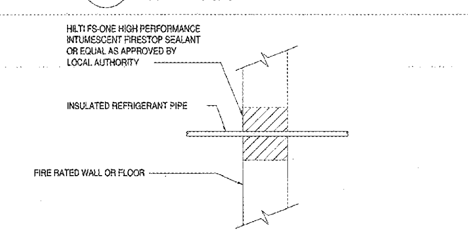
13 / M3.1 **ROOF MOUNTED EXHAUST FAN**
SCALE: NONE



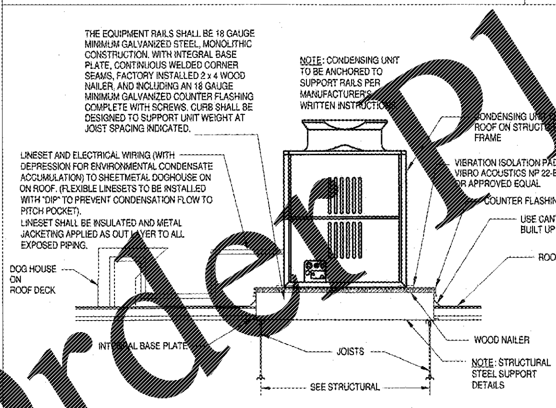
14 / M3.1 **HORIZONTAL FAN COIL UNIT DETAIL**
SCALE: NONE



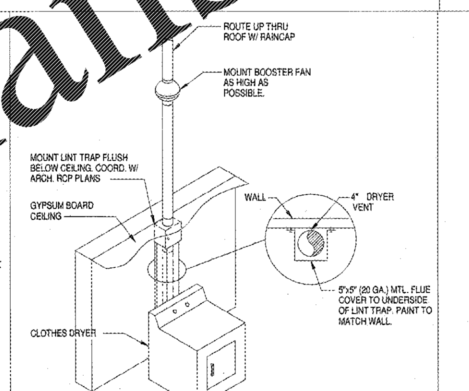
15 / M3.1 **EXHAUST FAN THRU WALL DETAIL**
SCALE: NONE



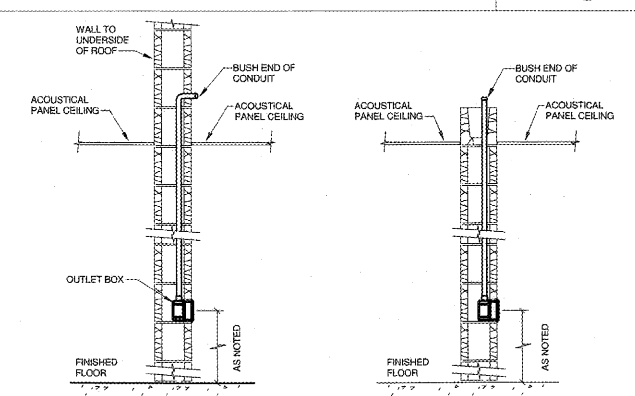
16 / M3.1 **REFRIGERATION PIPE FIRE RATED WALL PENETRATION**
SCALE: NONE



17 / M3.2 **ROOF MOUNTED CONDENSING UNIT ON RAILS**
SCALE: NONE



18 / M3.1 **DRYER VENT DETAIL**
SCALE: NONE



19 / M3.1 **THERMOSTAT/SENSOR MOUNTING DETAIL**
SCALE: NONE

MECHANICAL NOTES

1. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
2. DUCT SIZES ARE SHOWN AS CLEAR INSIDE DIMENSIONS. PROVIDE FLEXIBLE CONNECTIONS WHERE DUCTS CONNECT TO UNIT (IN RISER). RUN ALL DUCTWORK AS HIGH AS POSSIBLE TO AVOID INTERFENCE OF INTERSECTING DUCT.
3. 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.
4. INSULATE ALL SUPPLY AND RETURN DUCT WITH MINIMUM R-6 INSTALLED FIBERGLASS, FOIL BACKED INSULATION OR RIGID BONDED TO PREVENT CONDENSATION. INSTALL IN ACCORDANCE WITH SMACNA DUCT WRAP APPLICATIONS STANDARDS. INSTALL DUCT LINER IN THE FIRST TEN FEET OF SUPPLY AND RETURN DUCTS UNLESS NOTED OTHERWISE. ALL EXPOSED SPIRAL AND RECTANGULAR DUCT SHALL BE DOUBLE WALL WITH LINER WITHIN. ALL DUCTWORK DIMENSIONS ARE NET INSIDE DIMENSIONS. ALL DUCTWORK ELBOWS SHALL BE INSTALLED WITH TURNING VANES. ALL EXTERIOR DUCT SHALL BE PAINT GRIP DOUBLE WALL WITH LINER WITHIN.
5. ALL CONTROL WIRING SHALL BE RUN INSIDE WALLS OR ABOVE CEILINGS. IN UNFINISHED AREAS, ROUTE CONTROL WIRING INSIDE CONDUIT IN JOIST SPACE.
6. PROVIDE DEEP SEAL TRAP AT CONDENSATE DRAIN FROM DX COIL AT ALL UNITS. INSULATE ALL CONDENSATE DRAIN PIPING WITHIN THE BUILDING WITH 3/8" WALL THICKNESS AP ARMAFLEX TYPE INSULATION. ROUTE TO SPLASHBLOCK MINIMUM 5FT AWAY FROM UNIT ON ROOF. CONDENSATE FROM ALL INDOOR FAN COIL UNITS SHALL BE TYPE "L" COPPER ROUTED TO NEAREST WALL BOX OR MOP SINK AS INDICATED ON THE HVAC/PLUMBING FLOOR PLANS. ALL EXTERIOR CONDENSATE PIPING SHALL SCHEDULE 40 PVC. 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. ROUTE CONDENSATE TO ROOF IF NO LOCATION IS SPECIFIED. CONTRACTOR TO RUN ALL CONDENSATE PIPE IN WALL AND CONCEALED FROM VIEW AS MUCH AS POSSIBLE.
7. 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.
8. IN AIR SYSTEMS GREATER THAN 2000 CFM, SMOKE DETECTORS SHALL BE LOCATED IN THE SUPPLY AIR STREAM DOWNSTREAM OF THE AIR FILTERS AND AHEAD OF ANY BRANCH CONNECTIONS. UPON ACTIVATION, SMOKE DETECTOR SHALL SHUT DOWN THE UNIT AND ACTIVATE A VISIBLE AND AUDIBLE SENSORY SIGNAL.
9. RECIRCULATING AIR SYSTEMS WITH A FAN CAPACITY LESS THAN 2,000 CFM BUT SERVING AN AREA FOR EGRESS SHALL HAVE A SMOKE DETECTOR AS MEANS OF AUTOMATIC SHUTDOWN LOCATED IN THE SUPPLY.
10. CONTRACTOR TO COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
11. SPIN-IN TAKE-OFF TO BE MADE WITH GENFLEX MODEL SM-1 DEL OR EQUIVALENT.
12. FLEXIBLE DUCT TAKE-OFF TO BE THERMAFLEX TYPE M-KE OR EQUIVALENT. ALL FLEXIBLE DUCTWORK IN ACOUSTICAL CRITICAL AREAS (THEATER, STAGE BAND, CHORAL) TO BE FLEXMASTER U.S.A TYPE 8M-INSULATED DUCTWORK OR EQUIVALENT.
13. LOCATION OF ALL EXTERIOR WALL PENETRATIONS SHALL BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
14. UNDERCUT ALL JANITOR AND RESTROOM DOORS 3/4" (BY G.C.).
15. EXACT LOCATION OF ALL CEILING DIFFUSERS TO BE COORDINATED WITH LIGHTING LAYOUT. CEILING CONTRACTOR TO PROVIDE ADEQUATE ACCESS IN CEILING GRID AT DIFFUSER/DAMPER LOCATIONS FOR PURPOSE OF AIR BALANCING.
16. ALL FANS 1/8 H.P. AND ABOVE SHALL HAVE FUSED DISCONNECT SWITCHES MOUNTED AT THE FAN. IF APPROVED BY LOCAL AUTHORITIES, NON-FUSED DISCONNECT SWITCHES MAY BE USED. DISCONNECTS PROVIDED BY ELECTRICAL CONTRACTOR.
17. CONTRACTOR TO PROVIDE JUNCTION BOX & 3/4" EMPTY CONDUIT FOR EACH THERMOSTAT/SENSOR LOCATION PER PLANS. SEE THERMOSTAT MOUNTING DETAILS ON THIS SHEET. INSTALL PER DIVISION 26 SPECIFICATIONS.
18. MAXIMUM LENGTH OF FLEXIBLE DUCT IS NOT TO EXCEED 8'-0". BRANCH DUCT RUN OUTS TO DIFFUSERS SHALL BE SAME SIZE AS DIFFUSER NECK UNLESS OTHERWISE SPECIFIED.
19. CONTRACTOR TO COORDINATE ALL CLEARANCES PRIOR TO INSTALLATION OF EQUIPMENT AND MATERIAL.
20. MOUNT ALL THERMOSTATS/SENSORS 60" A.F.F. UNLESS NOTED OTHERWISE. ANY THERMOSTATS/SENSORS LOCATED ON AN EXTERIOR WALL SHALL BE MOUNTED ON AN INSULATING BASE. ALL CONTROL WIRING SHALL BE RUN INSIDE WALLS OR ABOVE CEILINGS. PROVIDE LOCK BOX.
21. MECHANICAL CONTRACTOR TO COORDINATE WITH CONTROLS CONTRACTOR BEFORE INSTALLING CONTROLS-RELATED EQUIPMENT.
22. TESTING, ADJUSTING AND BALANCING OF MECHANICAL SYSTEM SHALL BE PROVIDED BY CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS NECESSARY FOR COMPLETE AND FULLY FUNCTIONING SYSTEM INCLUDING INITIAL START-UP AND INSTALLATION OF NEW FILTERS.
23. ALL FIRE DAMPERS SHALL BE "B" TYPE (CURTAIN OUT OF THE AIRSTREAM). SEE PLAN FOR LOCATION, SIZE AND QUANTITY.
24. 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 24"x24" ACCESS PANEL FOR BALANCING DAMPERS IN GYPSUM BOARD CEILING DIFFUSERS AND GRILLES. PAINT TO MATCH BACKGROUND.
25. PROVIDE TURNING VANES IN ALL RECTANGULAR 45, 60 & 90 DEGREE MITERED ELBOWS.
26. OBTAINING ALL REQUIRED PERMITS AND PAYING ALL ASSOCIATED FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
27. ELECTRICAL ROOM: CONTRACTOR SHALL NOT ROUTE DUCTWORK ABOVE ELECTRICAL EQUIPMENT AND PANELS.
28. ALL CONTRACTORS MUST COORDINATE EACH PIECE OF EQUIPMENT WITH ALL OTHER TRADES (GENERAL CONTRACTOR, PLUMBING CONTRACTOR, MECHANICAL CONTRACTOR, SPRINKLER CONTRACTOR, ELECTRICAL CONTRACTOR, ETC.) AFFECTED BY THAT PIECE OF EQUIPMENT (ROOF OPENINGS, WEIGHTS, POWER REQUIREMENTS, VOLTAGES, ETC.) PRIOR TO ORDERING EQUIPMENT AND AGAIN PRIOR TO INSTALLATION (ROOFTOP EQUIPMENT PRIOR TO LIFTING ONTO ROOF). NO EXTRA COMPENSATION WILL BE APPROVED IF COORDINATION IS NOT PERFORMED BY EACH RESPECTIVE CONTRACTOR AND SUBCONTRACTOR.
29. ANY MECHANICAL ITEMS IN QUESTION SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT/ENGINEER. CONTRACTOR SHALL SUBMIT A REQUEST FOR INFORMATION TO THE ARCHITECT/ENGINEER IN WRITING PRIOR TO REMOVAL OF ANY MECHANICAL ITEMS.
30. SEE MECHANICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
31. EQUIPMENT MINIMUM 10FT FROM ROOF EDGE WHEN MINIMUM 42" HIGH PARAPET/RAILS IS NOT PROVIDED FOR FALL PROTECTION.

ROBERTSON LODIA ROOF
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3460 Preston Ridge Road, Suite 275, Alpharetta, GA. 30005
770.674.2600 / www.rlrpc.com

05/08/18

Dawson County
College and Career Academy
Dawsonville, Georgia
FOR:
Dawson County Schools
Overall Squarefootage = 35,800 SF
FTE = 1625
(Facility No. 642-0198)
IUs = 74 (Existing) + 11 (New) = 85 IUs

REVISIONS

SHEET TITLE
HVAC - DETAILS AND NOTES

DATE
05-07-2018

PROJECT NUMBER
17-303

SHEET NUMBER
M3.1

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