

MECHANICAL DUCTWORK AND INSULATION NOTES

DUCTWORK SHALL BE GALVANIZED SHEET METAL FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA RECOMMENDATIONS. FIBERGLASS DUCTBOARD SHALL NOT BE USED AND WILL NOT BE ACCEPTED.

DUCTWORK SHALL BE INSULATED AS FOLLOWS:
 INTERIOR RECTANGULAR DUCTWORK (EXPOSED IN THE STOCK ROOM)
 ALL INTERIOR RECTANGULAR SUPPLY AND RETURN DUCTWORK EXPOSED IN THE STOCK ROOM SHALL PROVIDED WITH 1" LINER.
 ALL CONCEALED DUCTWORK ABOVE LAY-IN CEILING
 ALL CONCEALED DUCTWORK RUN ABOVE LAY-IN CEILING SHALL BE WRAPPED WITH 2" FIBERGLASS INSULATION.

INTERNAL INSULATION SHALL BE MINIMUM 1" THICK 1-1/2 PCF FIBERGLASS, NEOPRENE COATED, AND ADHERED WITH AN APPROVED ADHESIVE WITH 100% COVERAGE AND STICK CLIPS ON 12" CENTERS. INTERNALLY LINED INSULATION SHALL MEET MICROBIOLOGICAL STANDARD ASTM C 665. SHEET METAL SIZES SHALL BE INCREASED ACCORDINGLY TO ALLOW FOR DUCT LINER.

DUCTWORK COORDINATION NOTE:

FOR THE SALES AREAS, A NEW LAY-IN CEILING IS BEING INSTALLED AT 11'-10" AFF. BOTTOM OF SUPPLY AND RETURN DUCTWORK IN SALES AREA SHALL BE INSTALLED MINIMUM OF 12'-6" AFF. FOR THE STOCK ROOM AREA, ROOM WILL BE OPEN TO THE DECK. BOTTOM OF SUPPLY AND RETURN DUCTWORK IN STOCK ROOM SHALL BE INSTALLED 12'-6" AFF.

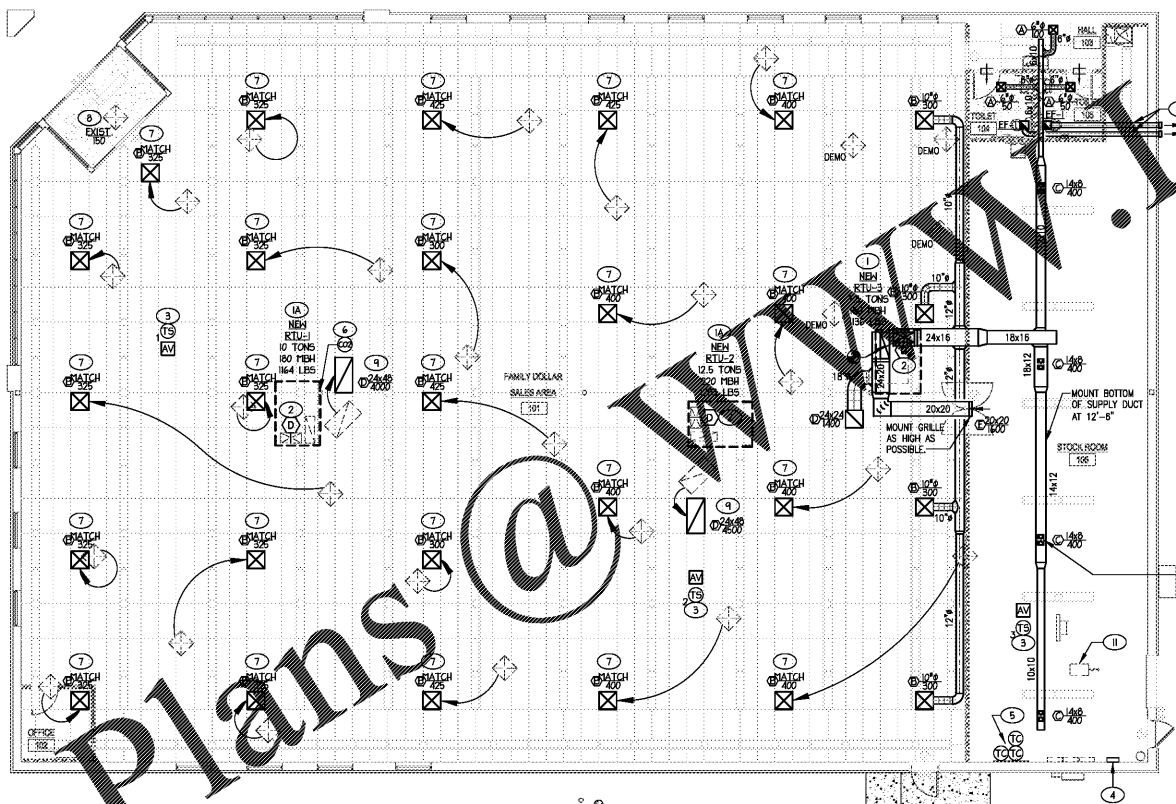
FOR THE HALL AND RESTROOMS, A CEILING IS BEING INSTALLED AT 8'-0" AFF. BOTTOM OF SUPPLY AND RETURN DUCTWORK SHALL BE RUN ABOVE CEILING TO ALLOW ADEQUATE ACCESS. IT IS THE RESPONSIBILITY OF CONTRACTOR TO FIELD COORDINATE DUCTWORK SIZES AND LAYOUT WITH EXISTING BUILDING CONDITIONS PRIOR TO FABRICATION AND INSTALLATION OF ANY DUCTWORK AND NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY CONFLICTS/INTERFERENCES. CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS FOR RELOCATION OF ANY CONDUIT, BRACING, ETC. IN ORDER TO ALLOW DUCTWORK TO BE INSTALLED PER THE PLANS. CONTRACTOR SHALL PROVIDE OFFSETS/TRANSITIONS AS NECESSARY. CONTRACTOR MAY ALTER DUCTWORK SIZES IF NECESSARY AS LONG AS DUCTWORK CROSS-SECTIONAL AREA IS MAINTAINED.

MECHANICAL PLAN KEYED NOTES

- 1A EXISTING PACKAGED ROOFTOP UNIT WITH GAS HEAT TO BE REPLACED WITH NEW PACKAGED ROOFTOP UNIT OF SAME CAPACITY. RECONNECT TO EXISTING GAS PIPING. RTU GAS LOAD IS NOT BEING INCREASED, THEREFORE EXISTING GAS PIPING IS ADEQUATE. RECONNECT TO EXISTING CONDENSATE PIPING. REPAIR/REPLACE EXISTING CONDENSATE PIPING AS NECESSARY. PROVIDE CLEANING OF THE INTERIOR OF ALL EXISTING SUPPLY AND RETURN DUCTWORK THAT IS TO REMAIN. CONTRACTOR SHALL PROVIDE ALL NEW DIFFUSERS AND CONTROLS AS INDICATED ON THE PLANS, SCHEDULES AND NOTES UNLESS NOTED OR SHOWN AS EXISTING TO REMAIN. CONTRACTOR SHALL MOUNT HVAC UNIT ON EXISTING ROOF CURB. NEW RTU SHOULD BE A "DIRECT FIT" AND SHOULD NOT REQUIRE AN "ADAPTA-CURB" (CONFORM WITH HVAC SUPPLIER PRIOR TO BID AND PROVIDE "ADAPTA-CURB" IF NECESSARY). PROVIDE COMPLETE TEST AND BALANCE PER AIR FLOWS AS SHOWN ON PLANS. BALANCE OUTSIDE AIR CFM TO QUANTITY AS SHOWN IN VENTILATION CALCULATIONS.
- 2 EXISTING 3 TON PACKAGED ROOFTOP UNIT WITH GAS HEAT TO BE REPLACED WITH NEW 7.5 PACKAGED ROOFTOP UNIT WITH GAS HEAT. GAS HEATING CAPACITY OF NEW UNIT IS 180 MBH COMPARED WITH 72 MBH OF EXISTING UNIT. PROVIDE NEW 1-1/4" GAS PIPING FROM MAIN 2" GAS LINE (TOTAL GAS CAPACITY OF 841 MBH) ABOVE CEILING TO RTU. PROVIDE NEW DIRT LEG AND NEW GAS CONNECTION TO NEW ROOFTOP UNIT. RECONNECT TO EXISTING CONDENSATE PIPING. REPAIR/REPLACE EXISTING CONDENSATE PIPING AS NECESSARY. CONTRACTOR SHALL PROVIDE ALL NEW DUCT DROPS, DUCTWORK, DIFFUSERS AND CONTROLS AS INDICATED ON THE PLANS, SCHEDULES AND NOTES. CONTRACTOR SHALL MOUNT HVAC UNIT ON NEW ROOF CURB. PROVIDE COMPLETE TEST AND BALANCE PER AIR FLOWS AS SHOWN ON PLANS. BALANCE OUTSIDE AIR CFM TO QUANTITY AS SHOWN IN VENTILATION CALCULATIONS.
- 3 EXISTING DUCT SMOKE DETECTOR IN SUPPLY AIR DUCT TO REMAIN. (FOR RTU-3, RELOCATE EXISTING DUCT SMOKE DETECTOR IN NEW UNIT SUPPLY DUCT DROP.) RECONNECT TO NEW RTU. VERIFY OPERATION AND REPAIR/REPLACE AS REQUIRED TO BRING TO GOOD WORKING ORDER.
- 4 REMOVE EXISTING THERMOSTAT AND INSTALL REMOTE SPACE TEMPERATURE SENSOR FURNISHED WITH EMS AND INSTALLED BY CONTRACTOR. SEE EM SHEETS FOR INSTALLATION DETAILS. FOR MOUNTING OF REMOTE SPACE TEMPERATURE SENSOR, REFER TO EMS CEILING DOWNROD INSTALLATION INSTRUCTIONS.
- 5 ENERGY MANAGEMENT SYSTEM (EMS). EMS SHALL BE SUPPLIED BY FAMILY DOLLAR AND INSTALLED BY CONTRACTOR. SEE EM SHEETS FOR INSTALLATION DETAILS AND RESPONSIBILITIES.
- 6 REMOVE EXISTING THERMOSTAT AND INSTALL HVAC UNIT CONTROLLER FURNISHED WITH EMS AND INSTALLED BY CONTRACTOR. MOUNT HVAC UNIT CONTROLLER AT COMMUNICATION SCHEDULED DETAIL 1/4" FOR EXACT MOUNTING LOCATION. SEE EM SHEETS FOR INSTALLATION DETAILS.
- 7 CO2 SENSOR FURNISHED WITH EMS AND INSTALLED BY CONTRACTOR. MOUNT CO2 SENSOR TO COLUMN. SEE EM SHEETS FOR INSTALLATION DETAILS AND CO2 SENSOR CONTROLLER SETUP INSTRUCTIONS. FIELD COORDINATE FINAL LOCATION WITH PROJECT MANAGER AND SITE SPECIFIC FUTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.
- 8 EXISTING SUPPLY DIFFUSER TO BE RELOCATED AND RECONNECTED WITH NEW SUPPLY DIFFUSER AS SCHEDULED. BALANCE AIR QUANTITY AS SHOWN ON PLANS. EXTEND/MODIFY EXISTING DUCTWORK AS REQUIRED FOR RECONNECTION TO NEW SUPPLY DIFFUSER. EXCESS FLEXIBLE DUCTWORK SHALL BE TRIMMED.
- 9 EXISTING SUPPLY DIFFUSER TO BE REMOVED, CLEAN AND REPAIR TO BRING TO LIKE NEW CONDITION. BALANCE TO AIR QUANTITY AS SHOWN ON PLANS.
- 10 EXISTING RETURN GRILLE TO BE RELOCATED AND REPLACED WITH NEW RETURN GRILLE AS SCHEDULED. BALANCE AIR QUANTITY AS SHOWN ON PLANS. EXTEND/MODIFY EXISTING DUCTWORK AS REQUIRED FOR RECONNECTION TO NEW RETURN GRILLE.
- 11 6" EXHAUST DUCT OUT THROUGH WALL CAP. MOUNT EXHAUST DUCTWORK MINIMUM 12'-6" AFF.
- 12 REMOVE EXISTING GAS UNIT HEATER AND ALL ASSOCIATED GAS PIPING, FLUE VENT PIPING AND ROOF TERMINATION CAP. COORDINATE REPAIR OF ROOF OPENING WITH GENERAL CONTRACTOR.

MECHANICAL LEGEND

- 18x14 RECTANGULAR DUCT
- 6" ROUND METAL DUCT
- 6" FLEX/RIGID ROUND DUCT
- ELBOW WITH TURNING VANES
- VOLUME DAMPER
- SUPPLY TAP WITH VOLUME DAMPER
- SUPPLY TAP
- SUPPLY DIFFUSER/GRILLE
- RETURN REGISTER/GRILLE
- EXHAUST REGISTER/GRILLE
- VERTICAL SUPPLY DUCT
- VERTICAL RETURN DUCT
- VERTICAL EXHAUST DUCT
- CEILING DIFFUSER/GRILLE
- MECHANICAL EQUIPMENT TYPE XX
- CEILING EXHAUST FAN
- HVAC UNIT CONTROLLER
- REMOTE SPACE TEMPERATURE SENSOR
- DUCT SMOKE DETECTOR. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS.
- CO2 SENSOR FURNISHED WITH EMS
- LOOVEDR DOOR (SEE ARCHITECTURAL DRAWINGS)
- 1" DOOR UNDER CUT
- U.L. FIRE DAMPER
- AUDIO/VISUAL DEVICE TIED TO DUCT SMOKE DETECTOR. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS. RECESS IN CEILING GRID IN SALES AREA. SURFACE MOUNT TO BOTTOM OF JOIST IN STOCK ROOM.
- POINT OF CONNECTION TO EXISTING.



1 MECHANICAL FLOOR PLAN
1/8"=1'-0"

MECHANICAL DEMOLITION NOTES:
 CONTRACTOR SHALL REMOVE ALL EXISTING ROOFTOP HVAC UNITS. FOR RTU-1 AND RTU-2, EXISTING ROOF CURBS AND ROOF OPENINGS SHALL BE REUSED. FOR RTU-3, REMOVE EXISTING ROOF CURB. NEW ROOF CURB AND ENLARGED ROOF OPENING SHALL BE REQUIRED FOR RTU-3. ALL DUCTWORK FOR RTU-1 AND RTU-2 SHALL REMAIN AND BE MODIFIED AS SHOWN ON PLANS. ALL UNIT DUCT DROPS, DUCTWORK AND AIR DISTRIBUTION FOR RTU-3 SHALL BE REMOVED AND NEW PROVIDED AS SHOWN ON PLANS. ALL THERMOSTATS AND CONTROLS SHALL BE REPLACED WITH NEW AS SHOWN ON PLANS. ALL EXISTING DUCT SMOKE DETECTORS IN SUPPLY AIR DUCT DROPS SHALL REMAIN (FOR RTU-3, RELOCATE TO NEW SUPPLY DUCT DROP). REMOVE ALL EXISTING CEILING EXHAUST FANS AND DUCTWORK. SEAL, CAP OFF AND INSULATE EXISTING EXHAUST DUCTWORK 12" BELOW ROOF. FIELD COORDINATE FINAL SCOPE OF DEMOLITION WORK WITH GENERAL CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.

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FAMILY DOLLAR STORE, FDS #791801
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 MECHANICAL LIFT PLAN

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