

NCFGC TABLE 402.4(7) 2018

PIPE	INITIAL PRESSURE	PRESSURE DROP	MAX. DEVELOPED LENGTH	MAX. CAPACITY CFH
3/4"	5.0 PSI	3.5 PSI	60'	2,630
1"	5.0 PSI	3.5 PSI	60'	4,800
1 1/4"	5.0 PSI	3.5 PSI	60'	9,860
1 1/2"	5.0 PSI	3.5 PSI	60'	14,800
2"	5.0 PSI	3.5 PSI	60'	28,500

GAS PIPING LEGEND

- └─┘ PIPE ELBOW
- └─┘ PIPE ELBOW DOWN
- ⊕ GAS COCK
- └─┘ 6" DIRT LEG
- └─┘ STRAINER
- ⊕ PRESSURE REGULATOR
- PIPE SUPPORT

GAS PIPING NOTES

1. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT FOR SAFETY AND MAINTENANCE.
2. PAINT ALL GAS PIPING WITH TWO COATS PRIMER AND ONE COAT OF INDUSTRIAL OSHA YELLOW UNLESS OWNER/ARCHITECT REQUEST OTHERWISE. LABEL EVERY 5' MAX.
3. NATURAL GAS PIPING 2" AND SMALLER SHALL BE SCHEDULE 40 BLACK STEEL (ASTM A-120) WITH 150 LB. M.I. SWEATED FITTINGS. UNDERGROUND PIPE SHALL BE TYPE-L COPPER INSULATED WITH POLYETHYLENE ENCASUREMENT SEALED WATER TIGHT.
4. VENT ALL REGULATORS TO EXTERIOR.

ABBREVIATIONS

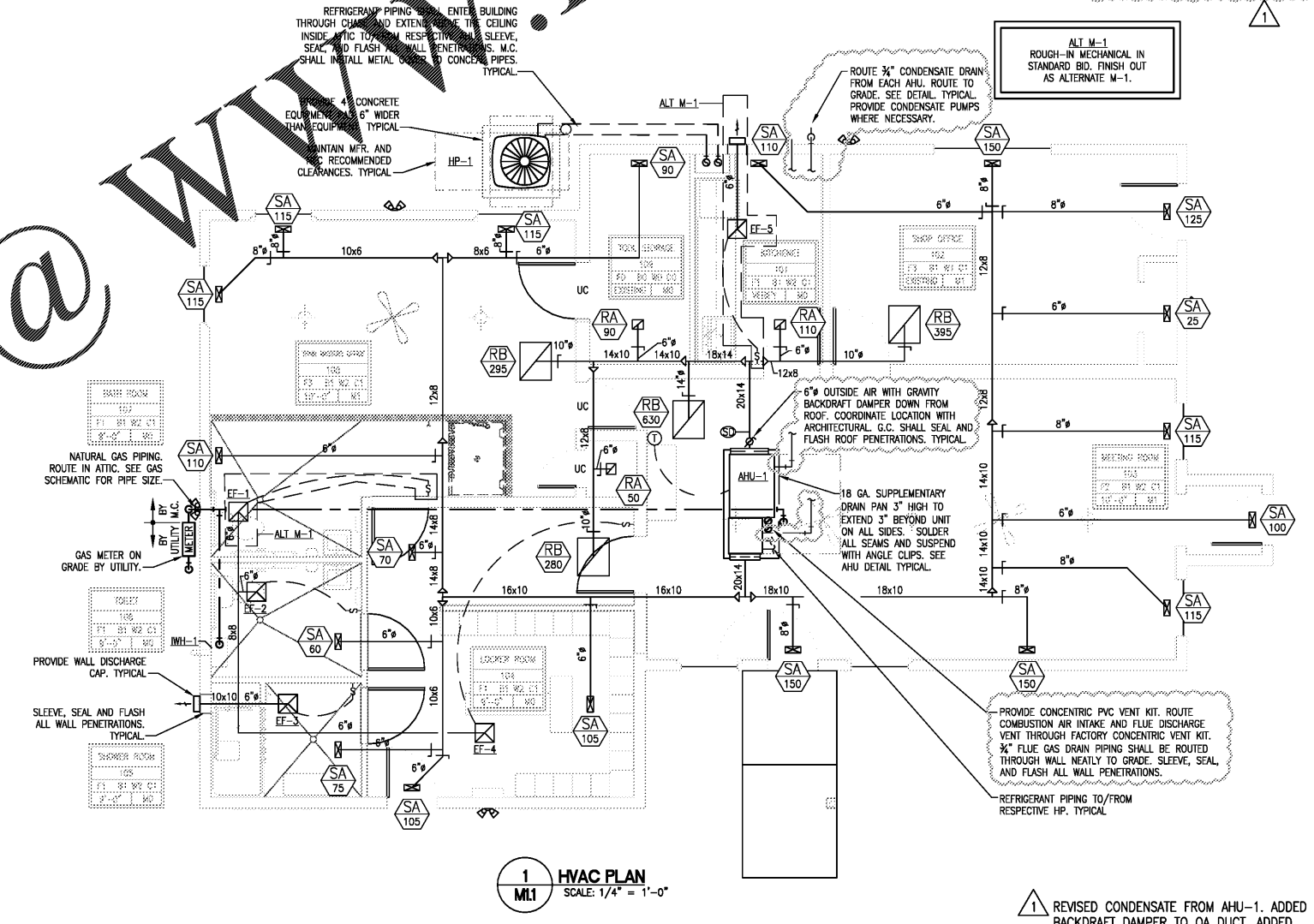
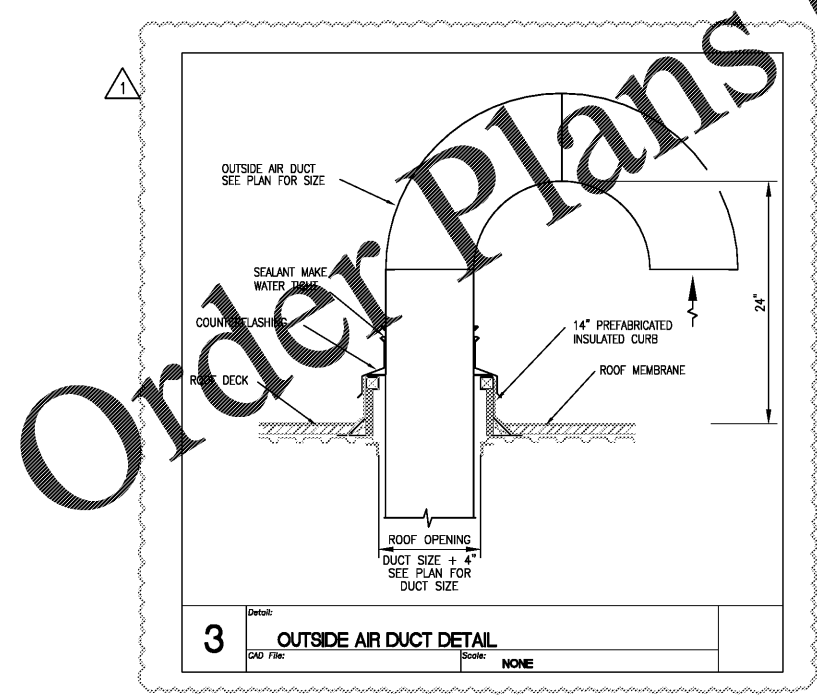
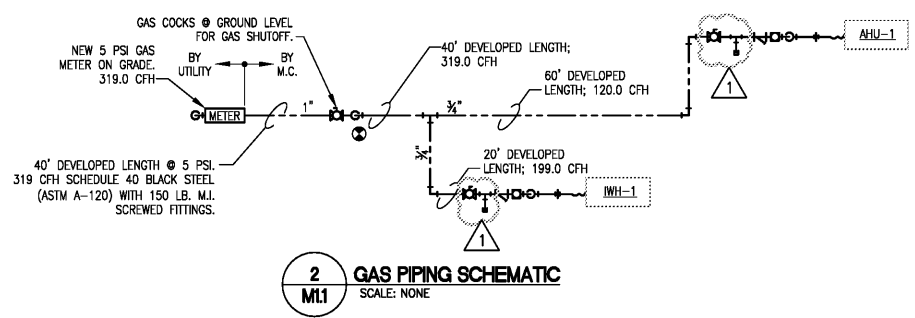
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|---------|---|---------|--|
| AD | ACCESS DOOR | HP | HORSEPOWER |
| AF | AIRFOIL FAN WHEEL | HRS | HOT ROLL STEEL |
| AFB | ABOVE FINISHED FLOOR | IN.W.G. | INCHES OF WATER GAUGE |
| AHU | AIR HANDLING UNIT | LWT | LEAVING WATER TEMPERATURE |
| CC | CONTROLS CONTRACTOR | MAX. | MAXIMUM |
| CFM | CUBIC FEET PER MINUTE | MC | MECHANICAL CONTRACTOR |
| CH | WATER COOLED CHILLER | MBH | BTU/HR x 1000 |
| CHWS | CHILLED WATER SUPPLY | MFR | MANUFACTURER |
| CHWR | CHILLED WATER RETURN | MIN. | MINIMUM |
| CT | COOLING TOWER | NOM. | NOMINAL |
| CWS | CONDENSER WATER SUPPLY | O.A. | OUTSIDE AIR |
| CWR | CONDENSER WATER RETURN | O.C. | ON CENTER |
| Db | DRY BULB TEMPERATURE, DEGREES FAHRENHEIT | O.D. | OUTSIDE DIAMETER |
| Dp | DEW POINT TEMPERATURE, DEGREES FAHRENHEIT | PAC | PACKAGED AIR CONDITIONING UNIT |
| DIA. | DIAMETER | PC | PLUMBING CONTRACTOR |
| EF | EXHAUST FAN | PD | PRESSURE DROP |
| EC | ELECTRICAL CONTRACTOR | QTY. | QUANTITY |
| EFF. % | MOTOR EFFICIENCY-PERCENT | RA | RETURN AIR |
| EWI | ENTERING WATER TEMPERATURE | RAF | RETURN AIR FAN |
| FLA | FULL LOAD AMPS | RH | REHEAT COIL |
| FM | WATER FLOW METER DEVICE | RPM | REVOLUTIONS PER MINUTE |
| FPI | FINS PER INCH | S.A. | SUPPLY AIR |
| FPM | FEET PER MINUTE | SF | SUPPLY FAN |
| FT.W.G. | FEET OF WATER GAUGE | SP | STATIC PRESSURE (INCHES OF WATER) |
| GPM | GALLONS PER MINUTE | UH | UNIT HEATER |
| HHWS | HEATING HOT WATER SUPPLY | VD | VOLUME DAMPER (MANUAL OPPOSED BLADE) |
| HHWR | HEATING HOT WATER RETURN | Wb | WET BULB TEMPERATURE, DEGREES FAHRENHEIT |

GENERAL NOTES

1. MECHANICAL CONTRACTOR (M.C.) SHALL INSTALL MANUAL VOLUME DAMPERS AT BRANCH DUCTS AND AS SHOWN IN BRANCH DUCT DETAILS.
2. M.C. SHALL FIELD VERIFY DUCT ROUTING AND NOTIFY ENGINEER OF RECORD OF ANY CONFLICTS IMMEDIATELY.
3. ALL DUCT SIZES ARE INSIDE CLEAR.
4. M.C. SHALL USE FOIL GRIP AFG-1403-3 DUCT TAPE ON ALL LONGITUDINAL SEAMS AND TRANSVERSE JOINTS OF CONCEALED DUCT.
5. LONGITUDINAL SEAMS SHALL BE PITTSBURGH LOCK. BUTTON PUNCH SNAP LOCK IS NOT ALLOWED. TRANSVERSE JOINTS ON RECTANGULAR DUCTS SHALL BE DUCTMAITE.
6. DUCT PRESSURE CLASSIFICATION IS BASED ON THE MAXIMUM VELOCITY AND STATIC PRESSURE THROUGH THE SUPPLY AND RETURN DUCT SYSTEMS. ALL SEAMS, JOINTS, FASTENER PENETRATIONS AND CONNECTIONS ARE TO BE SEALED PER SMACNA STANDARDS BASED ON DUCT CLASSIFICATION.
7. HOLD ALL DUCT WORK LEVEL AND TIGHT AGAINST BOTTOM OF STRUCTURE UNLESS OTHERWISE INDICATED. CLOSELY COORDINATE WITH LIGHTING/ELECTRICAL CONTRACTOR BEFORE ANY DUCT IS FABRICATED. M.C. SHALL BE RESPONSIBLE FOR COORDINATED DETAILED MECHANICAL SHOP DRAWINGS OF EXACT DUCT AND PIPE ROUTING AND LOCATIONS, LIGHT LAYOUT.
8. M.C. SHALL ADJUST GRILLE AND DIFFUSER LOCATIONS TO MATCH REFLECTED PLAN AND LIGHT LAYOUT.
9. M.C. SHALL COORDINATE WITH ALL TRADES AND PROVIDE OFFSETS AND ADJUSTMENTS NECESSARY TO CORRECT ANY INTERFERENCES. ALL SUPPLY, RETURN AND EXHAUST DUCT, COLD AND CONDENSATE WATER, DRAIN PIPING AND EQUIPMENT SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL STATE AND LOCAL BUILDING CODES REGARDING SEISMIC CONSIDERATIONS IN RELATION TO THEIR INSTALLATION.
10. PROVIDE AN NEBB OR ABC CERTIFIED TEST AND BALANCE OF ALL SYSTEMS.
11. ALL LOW AND MEDIUM PRESSURE SUPPLY AND RETURN DUCT IN CONCEALED LOCATIONS SHALL HAVE 2.2 INCH THICKNESS WITH INSTALLED INSULATION R-6.0 W/VP INSULATION WITH VAPOR SEAL.
12. PROVIDE 1" ANTI-MICROBIAL COATED DUCT LINER ON RETURN/SUPPLY DUCTS TO/FROM AIR HANDLING UNIT CONNECTION THROUGHOUT 8" DUCT. INCREASE INDICATED DUCT SIZE 1" ON ALL SIDES WHERE APPROPRIATE IS INSTALLED.
13. ALL CONDENSATE PIPES SHALL BE INSULATED WITH 1" FIBERGLASS INSULATION WITH VAPOR BARRIER AND PREFABRICATED FITTINGS.

CONNECTION TO EQUIPMENT SHALL BE BY P.C. INCLUDING FLEX. CONNECTION.

P.C. SHALL MAKE FINAL CONNECTIONS.



- LEGEND**
- ⊕ SUPPLY AIR DIFFUSER
 - ⊕ RETURN AIR DIFFUSER
 - ⊕ EXHAUST AIR DIFFUSER
 - └─┘ MANUAL VOLUME DAMPER
 - ⊕ GRILLE TYPE - SEE SCHEDULE
 - 150 AIR QUANTITY - CFM
 - └─┘ PIPE ELBOW
 - ⊕ PIPE ELBOW DOWN
 - └─┘ PIPE TEE
 - ⊕ FAN CONTROL SWITCH BY E.C.
 - ⊕ PROGRAMMABLE ELECTRONIC THERMOSTAT WITH LOCKING COVER. MOUNT 42" A.F.F.
 - ⊕ UNDERCUT DOOR 1"
 - ⊕ DUCT SMOKE DETECTOR MOUNTED ON SIDE OF DUCT, ACCESS DOOR, AND ACCESSIBILITY THROUGH CEILING (IF APPLICABLE). INTERLOCKED WITH RESPECTIVE AIR HANDLING UNIT. AHU SHALL DISABLE UPON DETECTION OF SMOKE. UPON CLEARING AHU SHALL RESTART AUTOMATICALLY. INTERCONNECT WITH BUILDING FIRE ALARM IF BUILDING FIRE ALARM EXISTS.

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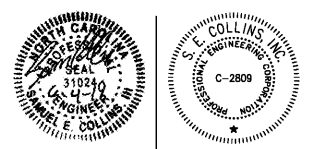
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YARD OFFICE
MECHANICAL PLAN

REVISION #1 SCO 5/29/2019

HISTORIC SPENCER SHOPS YARD OFFICE



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