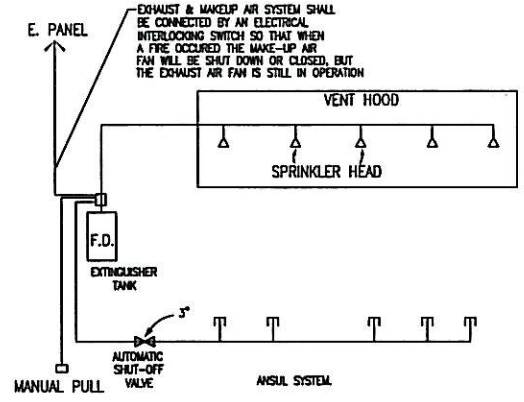
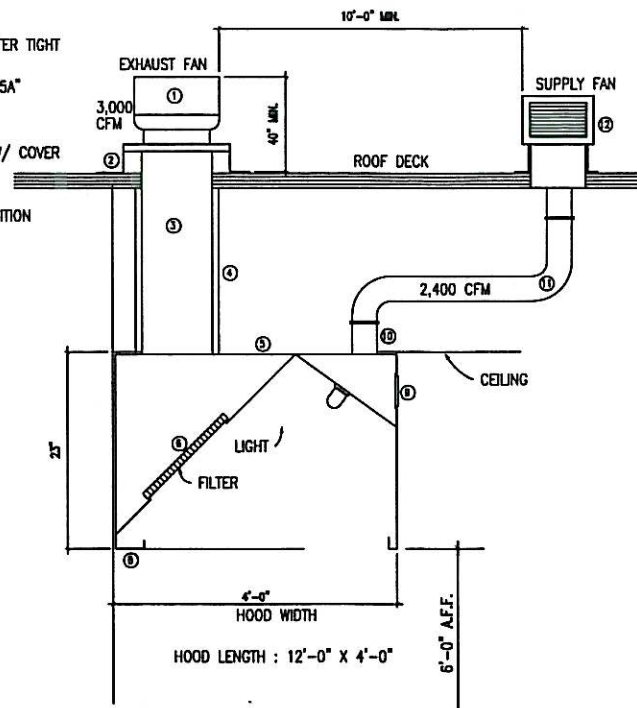


- ① ONE (1) AIR EXHAUST FAN
- ② ROOF JACK
- ③ 14"x14" - 16 GA. WELDED WATER TIGHT DUCT ASSEMBLY THRU ROOF
- ④ 3M FIRE BARRIER DUCT WRAP "15A"
- ⑤ 18 GA. S.S. HOOD TYPE-1
- ⑥ 2"x18"x18" FILTERS
- ⑦ UL APPROVED LIGHT FIXTURE W/ COVER
- ⑧ GREASE CUP
- ⑨ SUPPLY REGISTERS
- ⑩ 12" METAL MAKE UP AIR TRANSITION
- ⑪ 12" DIA. FLEX DUCT
- ⑫ ONE (1) SUPPLY FAN



FIRE SUPPRESSION

GLASS FIBER BLANKET INSULATION:
 FIRE HAZARD CLASSIFICATION 25/50, MEETING REQUIREMENTS OF NFPA 90A AS TESTED PER ASTM E84 AS COMPOSITE PRODUCT.
 MAXIMUM THERMAL CONDUCTIVITY= .31 BTU IN. PER SQ. FT. PER SQ. FT. PER HOUR AT 75°F MEAN TEMPERATURE PER ASTM C518.
 TEMPERATURE LIMIT 250° OR GREATER.
 FACING TO BE 0.35 MIL ALUMINUM FOIL REINFORCED WITH FIBER GLASS LAMINATED TO UL RATED KRAFT PAPER. FACING TO HAVE PERMEANCE OF 0.05 PERMS OR LESS

KITCHEN HOOD 1 & 2 (CAPTIVE AIRE)
 AIR EXHAUST = 4'x12'x62.5 cfm = 3,000 cfm
 MAKE UP AIR (80%) = 2,400 cfm
 A/C SUPPLY (20%) = 600 cfm
 = 2,400/1,800 = 1.33x144
 REQUIRED = 192 sq. in.
 EXH. DUCT SIZE = 14"x14" = 196 SQ. IN. (16 GAGE)

REFERENCE ATTACHED CAPTIVE AIRE HOOD DRAWINGS AND SPECS.

MECHANICAL NOTES:

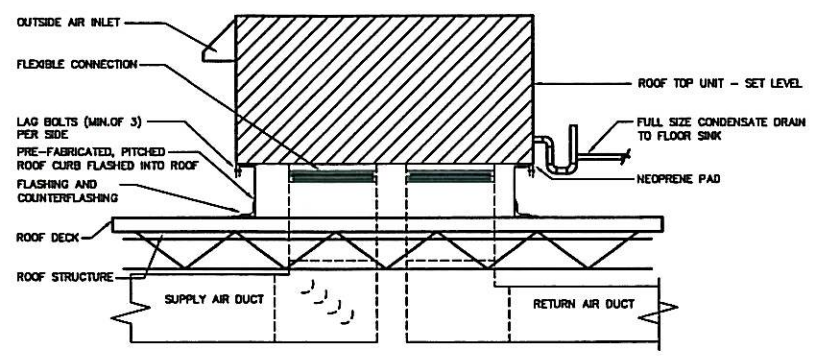
1. VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND FROM ARCHITECTURAL PLANS.
2. CONTRACTOR AND SUB-CONTRACTOR SHALL PAY FOR ALL PERMITS AND CHARGES REQUIRED AND COMPLY WITH ALL GOVERNING CODES AND ORDINANCES.
3. VISITING THE SITE: EACH BIDDER SHALL VISIT THE SITE OF THE PROPOSED WORK AND SHALL FULLY INFORM HIMSELF REGARDING THE FACILITIES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR WORK OR MATERIALS OMITTED FROM BIDDER'S CONTRACT PROPOSAL DUE TO HIS FAILURE TO SO INFORM HIMSELF BY SUCH INVESTIGATION.
4. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND STRUCTURE ENGINEER PRIOR TO THE PLACEMENT OF EQUIPMENT ON THE ROOF AND THE CUTTING OF THE ROOF OPENINGS.
5. REFER TO REFLECTIVE CEILING PLAN FOR THE EXACT LOCATIONS OF ALL CEILING AIR DEVICES.
6. FURNISH AND INSTALL COMPLETE AND OPERATIONAL MECHANICAL SYSTEMS AS SHOWN ON PLANS AND SPECIFIED HEREIN.
7. DUCTWORK SHALL BE AS FOLLOWS:
 - A. RIGID FIBERGLASS DUCT SHALL BE 1.5" THICK FIBERGLASS DUCT BOARD WITH ALUMINUM VAPOR BARRIER ON THE EXTERIOR COMPLIANT WITH UL STANDARD NO. 181, AIR DUCT.
 - B. FURNISH AND INSTALL AIR SCOOPS, EXTRACTORS, SPIN-IN FITTINGS WITH VOLUME DAMPERS AND SPLIT DAMPERS WITH OPERATORS AND LOCKING QUADRANTS AT ALL SPLITS, BRANCH CONNECTIONS AND REGISTER OR DIFFUSER CONNECTIONS TO DUCTWORK AND AS OTHERWISE INDICATED ON PLANS.
 - C. INSULATE ALL GALVANIZED SHEETMETAL SUPPLY, RETURN AND OUTSIDE AIR DUCT WITH 1" THICK, MATFACED INTERNAL DUCT LINER WITH SCREW SUPPORT AT 12" ON CENTER.
 - D. DIMENSIONS SHOWN ON PLANS SHALL BE FREE AIR FLOW AREA.
 - E. FLEXIBLE DUCT SHALL BE INSULATED WHERE LONGER RUNS ARE REQUIRED COMBINE FLEX. DUCT WITH RIGID ROUND DUCT (INSULATED).
 - F. SEAL ALL TRANSVERSE JOINTS, SEAMS AND FITTINGS WITH FOSTER "32-50" WATER BASE HIGH VELOCITY DUCT SEALANT IN ACCORDANCE WITH SMACNA STANDARD.
8. CONDENSATE LINES SHALL BE FULL SIZE, DRAIN TO APPROVED SANITARY SEWER
9. PROVIDE COMPLETE HVAC CONTROL SYSTEMS INCLUDING ELECTRONIC PROGRAMMABLE THERMOSTAT WITH TAMPER-PROOF LOCKING COVER, CONTROL WIRING CONDUITS, INTERLOCK WIRING AND CONTROL DEVICES.
10. SUPPLY AIR DIFFUSER SHALL BE TITUS MODEL TDC, UNLESS OTHERWISE NOTED, 24"x24" FACE, ROUND NECK WITH VOLUME DAMPER.
11. RETURN AND EXHAUST AIR GRILLES SHALL BE TITUS MODEL 50F OR EQUAL.
12. CONTRACTOR SHALL INSTALL ALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
13. CEILING EXHAUST GRILLE AND TRANSFER AIR GRILLE SHALL BE TITUS MODEL 50F OR EQUAL.
14. ANY WORK, INCLUDING CUTTING, VENTING OR DUCT INSTALLATION, WHICH INVOLVES CUTTING INTO THE EXISTING ROOF STRUCTURE AND ROOFING SYSTEM MUST BE PERFORMED BY LANDLORD'S ORIGINAL ROOFING SUBCONTRACTOR

EQUIPMENT SCHEDULE				
	MODEL #	SPECS	CFM	REMARKS
RTU-1	CARRIER, 48TCEA12B1A8-1B0A0	REFERENCE ATTACHED SPEC SHEETS	4000	800 CFM OUTSIDE AIR
RTU-2	CARRIER, 48TCEA08B1A8-1B0A0	REFERENCE ATTACHED SPEC SHEETS	3000	600 CFM OUTSIDE AIR
RTU-3	CARRIER, 48TCEA07B1A8-1B0A0	REFERENCE ATTACHED SPEC SHEETS	2400	480 CFM OUTSIDE AIR
RTU-4	CARRIER, 48TCEA12B1A8-1B0A0	REFERENCE ATTACHED SPEC SHEETS	4000	800 CFM OUTSIDE AIR
EF1	BROAN, QTKE050	REFERENCE ATTACHED SPEC SHEETS	50	3" VTR (TO OUTSIDE BLDG.) RESTROOM EXHAUST
EF2	BROAN, L150	REFERENCE ATTACHED SPEC SHEETS	157	3" VTR (TO OUTSIDE BLDG.) RESTROOM EXHAUST
EF3	BROAN, L150	REFERENCE ATTACHED SPEC SHEETS	157	3" VTR (TO OUTSIDE BLDG.)

- NOTES:
1. EACH OF ABOVE A/C UNITS SHALL HAVE ONE SOLID STATE PROGRAMMABLE THERMOSTAT, THE THERMOSTAT SHALL HAVE THE CAPABILITY TO SET BACK OR SHUT DOWN THE SYSTEM BASED ON DAY OF THE WEEK AND TIME OF DAY, AND PROVIDE A READILY ACCESSIBLE MANUAL OVERRIDE THAT WILL RETURN TO THE PRESETBACK OR SHUT DOWN SCHEDULE WITHOUT REPROGRAMMING.
 2. 1" PVC DRAIN LINE FOR EACH A/C UNIT, DRAIN DOWN TO APPROVED SANITARY SEWER.

FLEX DUCT SIZE	CFM RANGE	DIST. SUPPOR. CONTACT FLEX DUCT 1-1/2" MIN. (SAG 1/2" PER FOOT)	MAX. HORIZONTAL LENGTH CONNECTOR
6" DIA.	0 TO 120	4' MAX.	8' MAX.
8" DIA.	121 TO 230	4' MAX.	12' MAX.
10" DIA.	231 TO 350	4' MAX.	15' MAX.
12" DIA.	351 TO 500	4' MAX.	18' MAX.
14" DIA.	501 TO 650	4' MAX.	21' MAX.

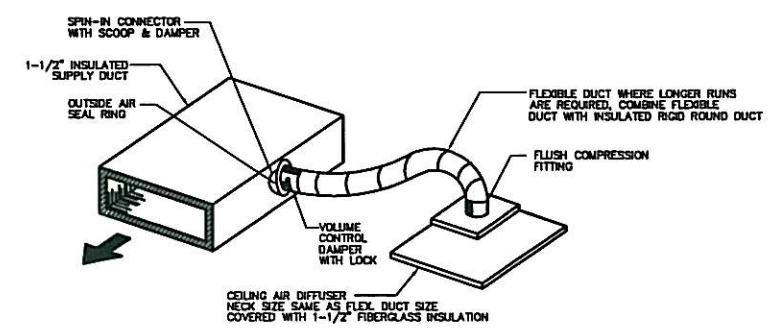
- NOTE:
1. FLEXIBLE DUCTS MUST BE PROPERLY SUPPORTED.
 2. FLEX DUCT ONLY FOR SUPPLY & MAJ AND SHORT SECTION FOR CONNECTION TO R/A GRILLE.
 3. PROVIDE METAL DUCT W/ INNER LINING FOR ALL DUCT WORK
 4. ALL SUPPLY & RETURN AIR DUCTS LOCATED IN UNCONDITIONED ATTICS, OUTSIDE THE ENVELOPE, OR OUTSIDE THE BUILDING SHALL BE INSULATED USING R-6 INSULATION. EXTERNALLY INSULATED DUCT SHALL BE R-6.
 5. ALL SUPPLY & RETURN AIR DUCTS LOCATED IN A CONDITIONED SPACE OR INSIDE THE ENVELOPE SHALL BE INSULATED USING R-5/R-6 INSULATION. EXTERNALLY INSULATED DUCT SHALL BE R-5/R-6.
 6. DUCT CONSTRUCTION FOR MAIN TRUNK LINES WILL BE DUCT BORE R-6.



SMOKE DETECTORS SHALL BE PROVIDED WITHIN THE RETURN AIR IF THE UNIT HAS A DESIGN CAPACITY GREATER THAN 2000 CM

ROOFTOP A/C UNIT DETAIL

HTS



FLEX DUCT EXTENSION DETAIL

HTS



10/27/10

STRATEM DESIGNS

1500 N. POST OAK, SUITE 160
 HOUSTON, TEXAS 77055
 PHONE: (832) 434-7547
 FAX: 1-(866) 486-1256
 DESIGNER: NICHOLAS HEYDEN



9009 SIENNA
 RETAIL BUILDING B
 MISSOURI, TEXAS 77459

MECHANICAL PLAN

Sheet Number:

M-1.1