

REVIEW & APPROVAL

DRAWN BY: L.E.B., M.M.

CHECKED BY: W.B.

DESIGN AGENCY: *John P. Soren*

PROFESSIONAL ENGINEER: *John P. Soren*

PROJECT ARCHITECT/ENGINEER: *John P. Soren*

MECHANICAL PLAN

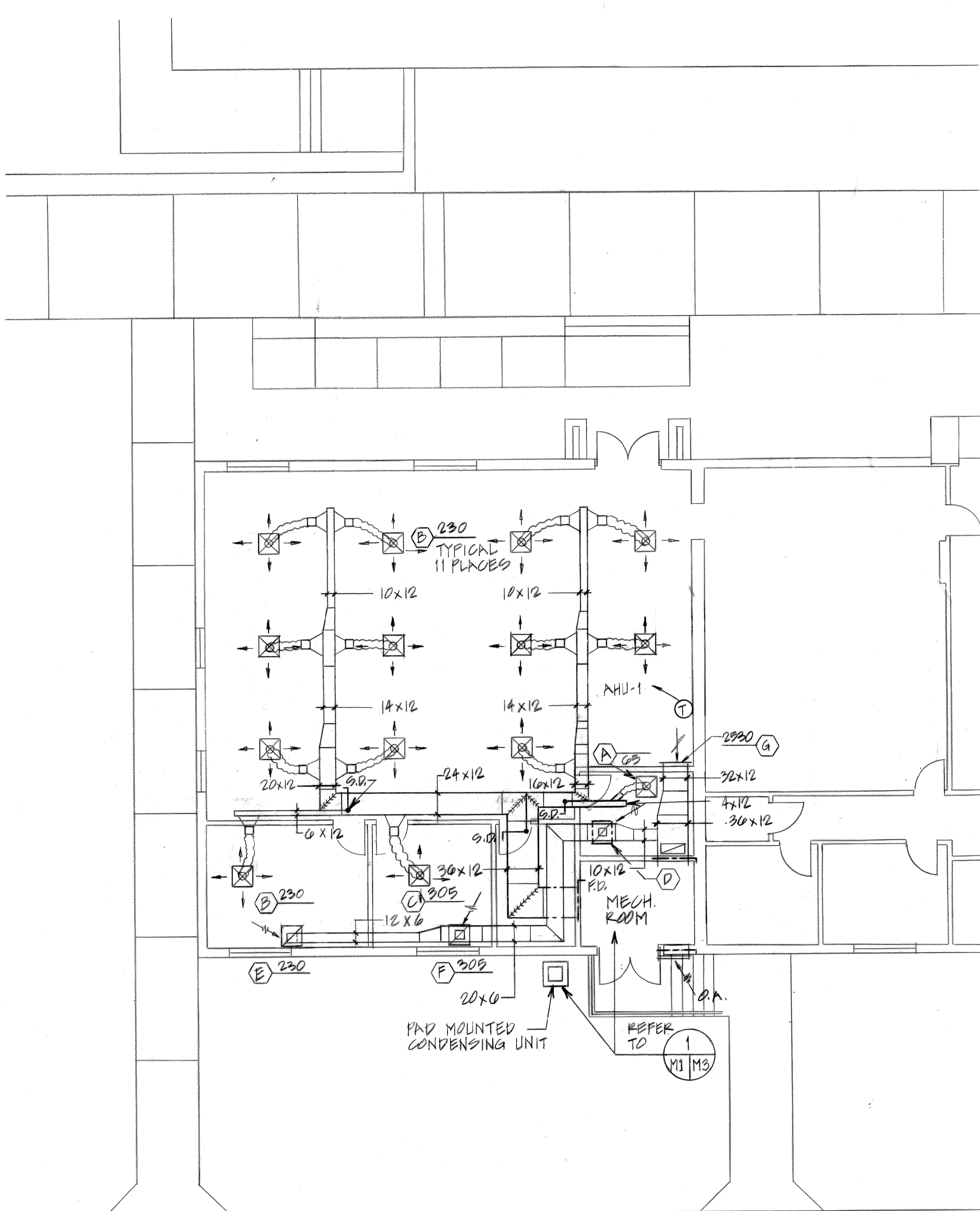
PROJECT TITLE: ADD TO/ALTER BLDG 570
DATE: AUGUST 1991
AIR FORCE SYSTEMS COMMAND, BROOKS AIR FORCE BASE, TEXAS

REVISIONS:

DRAWING NUMBER: BR90-050

PROJECT NUMBER: CNBC 880072

4 SHEETS SHIT. M-1



MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

HOT WATER COIL	
MARK	HW-1
DESCRIPTION	UNIT MTD. COIL
CAPACITY - MBH	500
AIR FLOW - CFM	3130
EAT - °F	97.8
EWT - °F	140
GPM	5.0
ΔP AIRSIDE - "H ₂ O	.15
ΔP WTRSIDE - "H ₂ O	.15
NOTES	① ②

- ① MAX. FACE VELOCITY = 960 FPM
- ② MAX. OUTSIDE AIR = 600 CFM

AIR DEVICE SCHEDULE						
MARK	NECK (INCHES)	CFM	TYPE	DESCRIPTION	REF. MFG. OR EQUAL	NOTES
A	6" φ	65	T-BAR LAY-IN	SUPPLY AIR DIFFUSER	TITUS PFS	① ② ③
B	8" φ	230	T-BAR LAY-IN	SUPPLY AIR DIFFUSER	TITUS PFS	① ② ③
C	10" φ	305	T-BAR LAY-IN	SUPPLY AIR DIFFUSER	TITUS PFS	① ② ③
D	6" x 6"	65	T-BAR LAY-IN	RETURN AIR GRILLE	TITUS PFS	③
E	8" x 8"	230	T-BAR LAY-IN	RETURN AIR GRILLE	TITUS PFS	③
F	10" x 10"	305	T-BAR LAY-IN	RETURN AIR GRILLE	TITUS PFS	③
G	32" x 20"	2530	SURFACE MOUNT	RETURN AIR GRILLE	TITUS 30 RS	

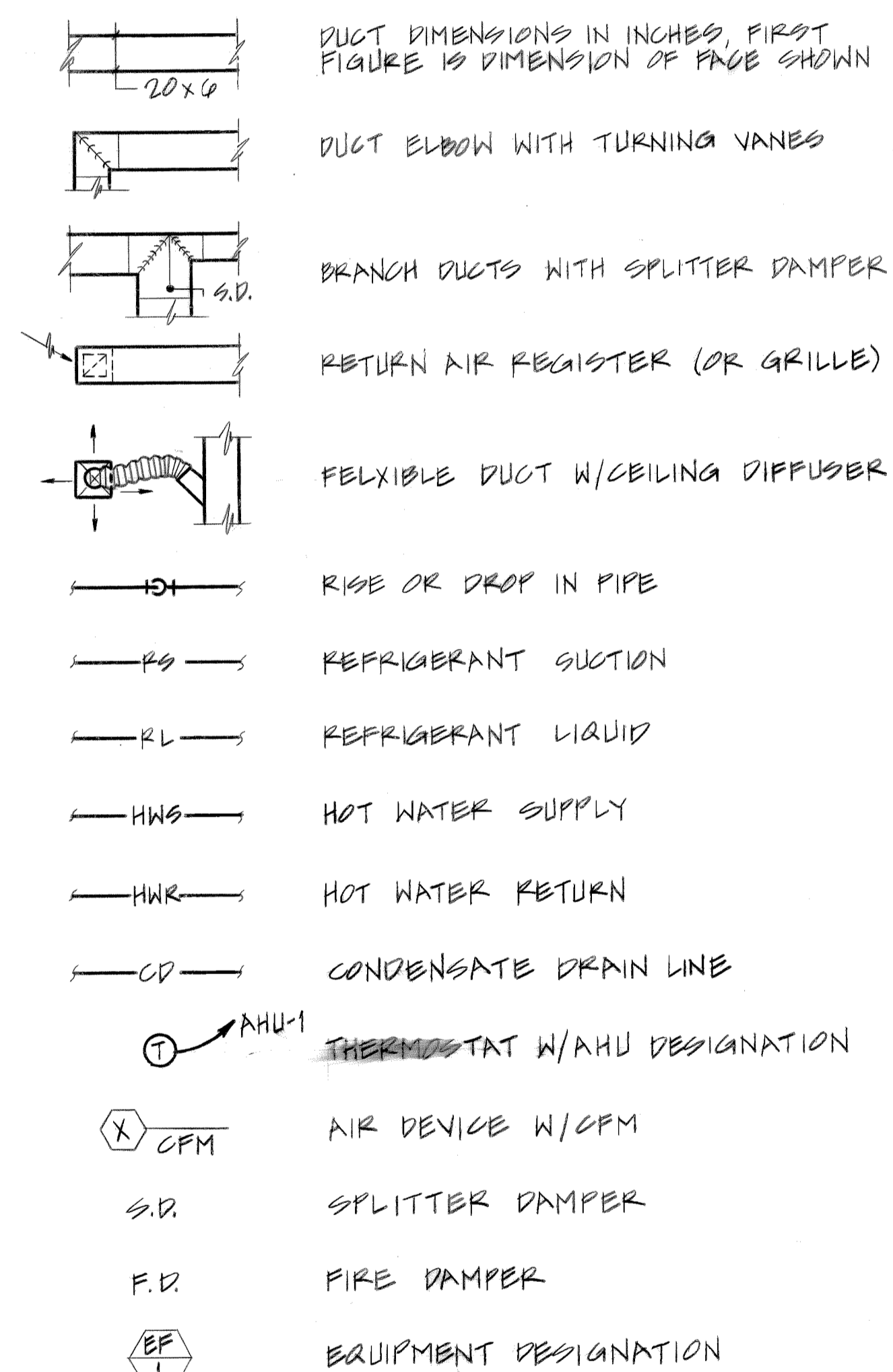
- ① SET PATTERN FOR 4-WAY THROW
- ② PROVIDE WITH OPPOSED BLADE VOLUME DAMPER
- ③ MODULE SIZE - 24" x 24"

CONDENSING UNIT SCHEDULE					
MARK	CAPACITY (BTUH) (NET)	AMBIENT °F	REFERENCE MFG. OR EQUAL	UNIT K/L	REMARKS
CU-1	120,000	100	TRANE TTA-120C	B	1,2

- 1. PROVIDE FILTER DRYERS, SIGHT GLASSES, VALVES AND GAGE COCKS WITH UNIT.
- 2. ACCESSORIES FOR UNITS: HIGH AND LOW PRESSURE SWITCH, CRANKCASE HEATERS, OIL PRESSURE SAFETIES, CONDENSER FAN CYCLING OR HEAD PRESSURE CONTROL AND SHORT CYCLE GUARD.

FLEX. DUCT SCHEDULE	
(FOR) MARK	DUCT DIA.
A	6" φ
B	8" φ
C	10" φ

MECHANICAL LEGEND



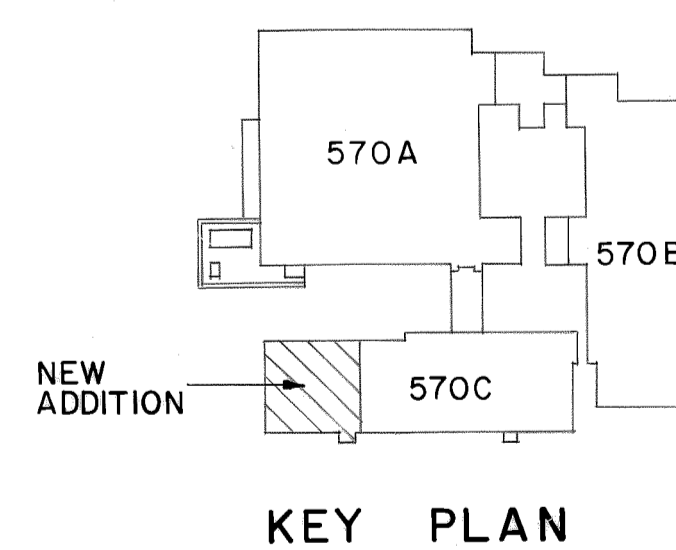
RELIEF VENT					
MARK	THROAT SIZE	CFM	MAX. S.P. IN H ₂ O	PARAMETRIC DAMPERS	NOTES
RV-1	24" x 30"	3130	-	YES	① ②

NOTES:

- ① SEE DETAIL G, SHEET, FOR TYPICAL INSTALLATION OF RELIEF VENT.
- ② PROVIDE WITH RELIEF DAMPER (MOTOR OPERATED) TO BE INTERLOCKED WITH AHU-1 FOR RELIEF OF OUTSIDE AIR DURING ECONOMIZER CYCLE OPERATION.

OUTSIDE AIR INTAKES					
MARK	SIZE	CFM	MAX. S.P. IN H ₂ O	NOTES	LOCATION
OA-1	30" x 42"	3130	.05	① ②	MECH. ROOM WALL

- ① REF. MFG. OR EQUAL - RUSKIN MOD. NO. ELF 0975D
- ② PROVIDE W/ BIRDSCREEN

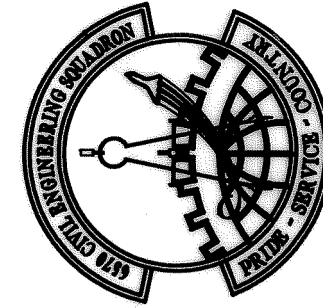


AIR HANDLING UNIT SCHEDULE		
	DESCRIPTION	AHU-1
FAN	TOTAL AIR (CFM)	3130
	OUTSIDE AIR (CFM) MIN./MAX.	600/3130
	TOTAL S.P. IN H ₂ O	2.25
MOTOR OR COOLING COIL	ENTERING AIR (°F DB)	81.0
	ENTERING AIR (°F WB)	66.8
	COIL SENSIBLE (BTUH)	78,500
	COIL TOTAL (BTUH)	93,000
	MAX. FACE VELOCITY (FPM)	960
OTHER	MIN. FAN (HP)	3.0
	POWER (V/φ/HZ)	208/1φ/60
	FILTER (IN)	2
	REMOTE CONTROL	YES
	MATCHING UNIT	TTA 120C
	REF. MFG. OR EQUAL	TRANE COH-0
	REMARKS	① ② ③ ④

- ① PROVIDE W/ ECONOMIZER CYCLE - SET POINT 55° F.
- ② FOR UNIT MOUNTED HOT WATER COIL (HW-1), SEE SEPARATE SCHEDULE ON THIS SHEET.
- ③ TOTAL S.P. INCLUDES .50" FOR DIRTY FILTER.
- ④ PROVIDE WITH MIXING BOX.



K.M. Ng & Associates, Inc.
Consulting Engineers
San Antonio, Texas 78201



6570TH CIVIL ENGINEERING SQUADRON

ENGR. & CONST.

UNITED STATES AIR FORCE

MECHANICAL DETAILS

REVIEW & APPROVAL

DRAWN BY S.D., B.G.

CHECKED BY W.B.

ISSUED BY *[Signature]*
REGISTERED PROFESSIONAL ENGINEER
PROJECT ARCHITECT/ENGINEER

AIR FORCE SYSTEMS COMMAND, BROOKS AIR FORCE BASE, TEXAS

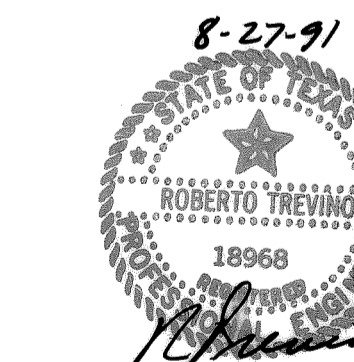
PROJECT TITLE ADD TO/ALTER BLDG 570
DATE AUGUST 1991

REVISIONS:

DRAWING NUMBER BR90-050

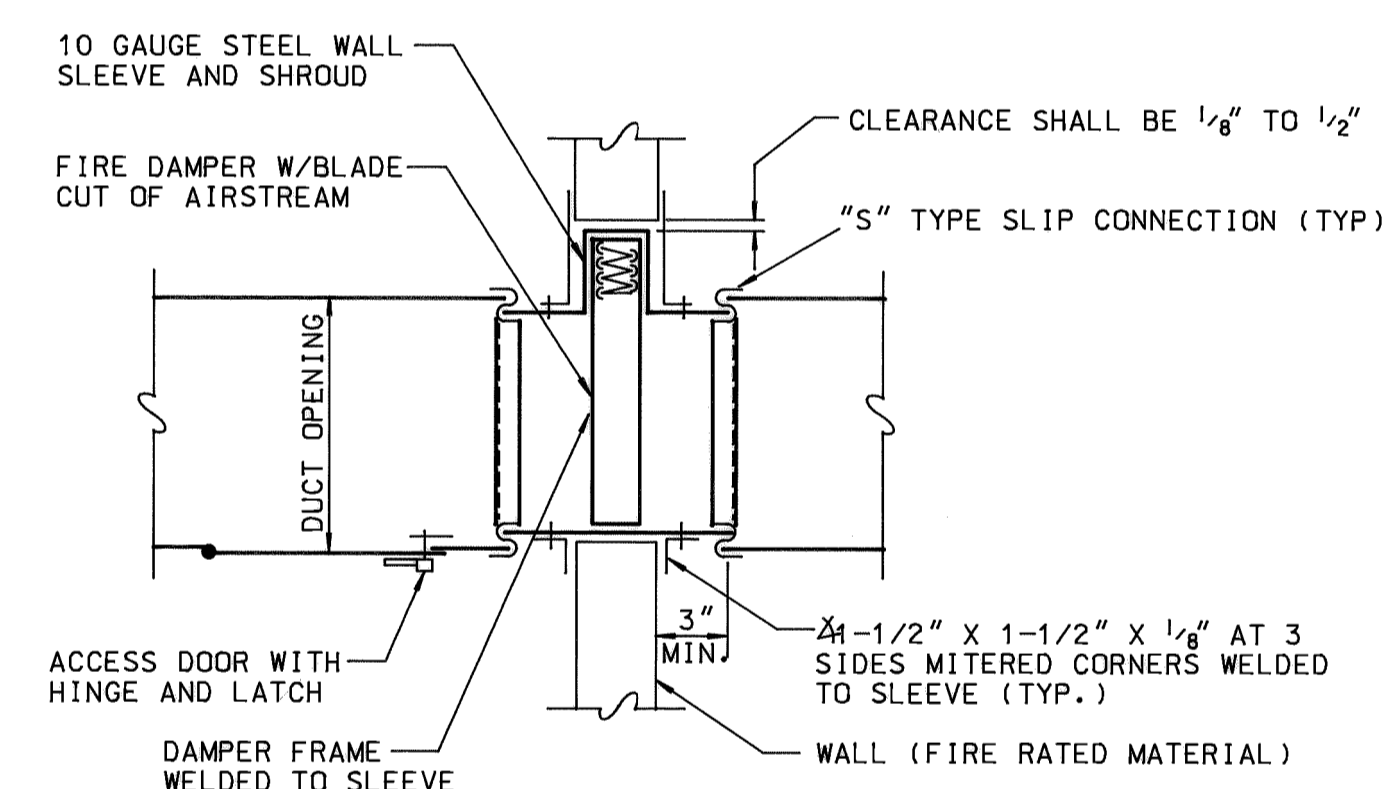
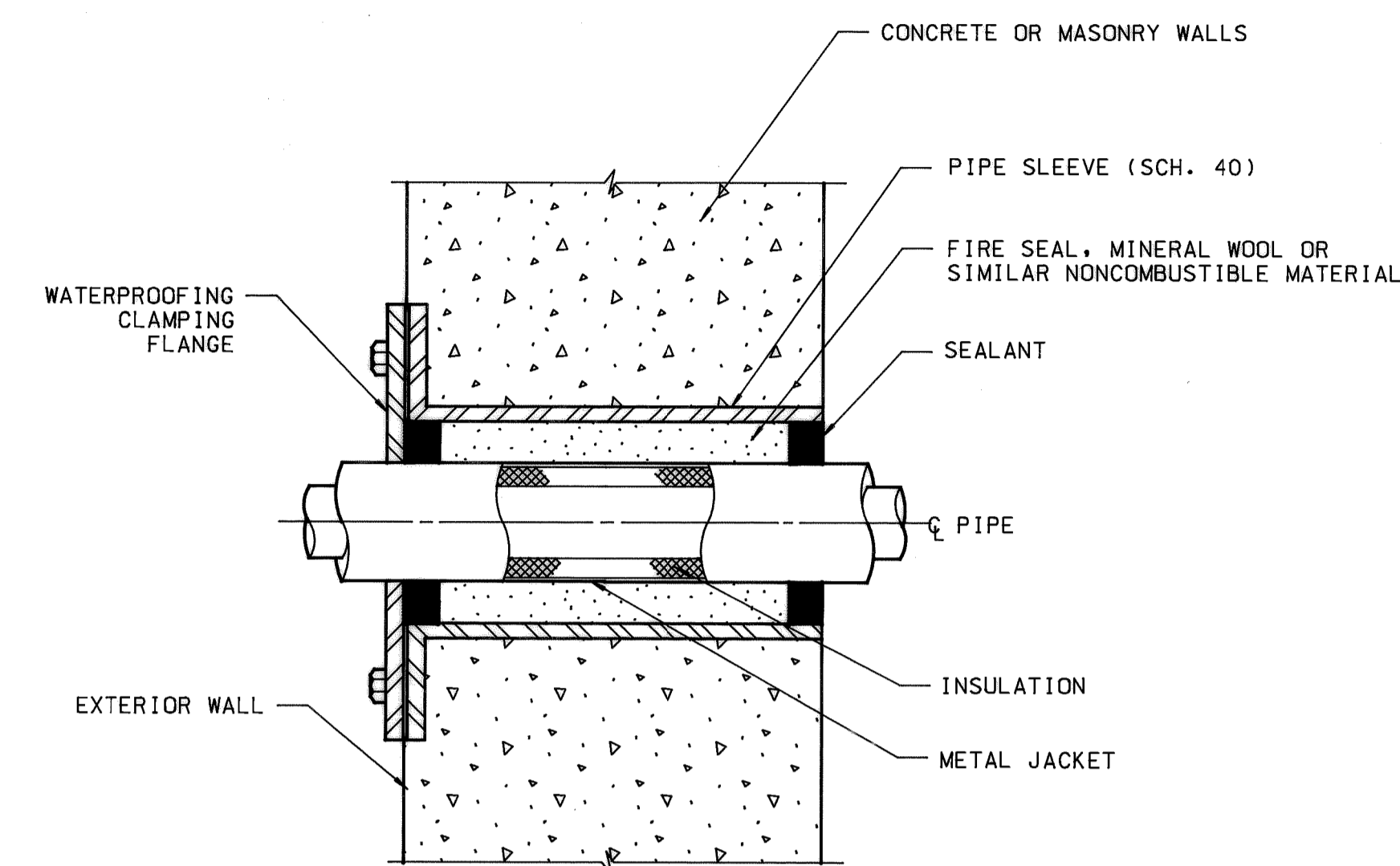
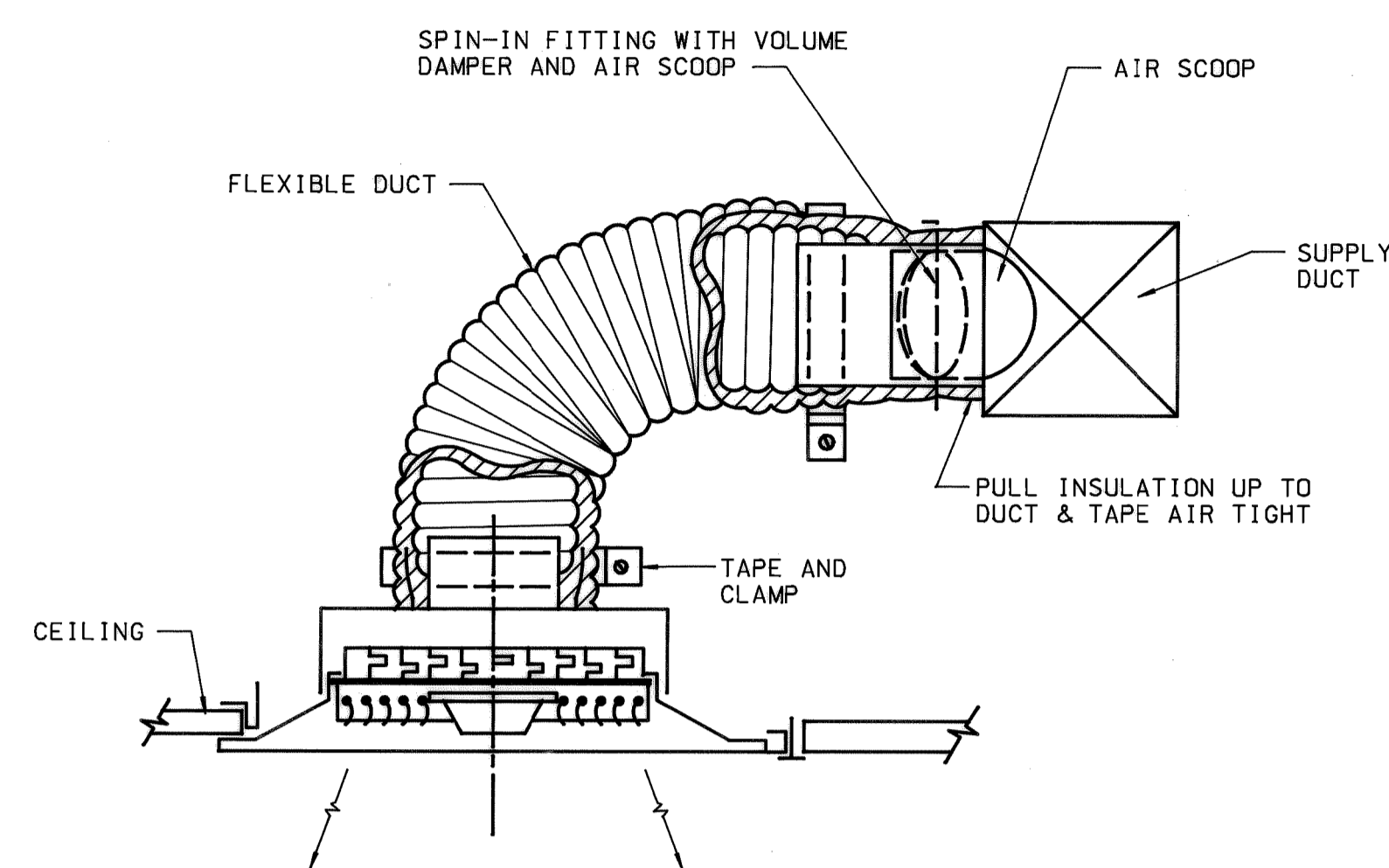
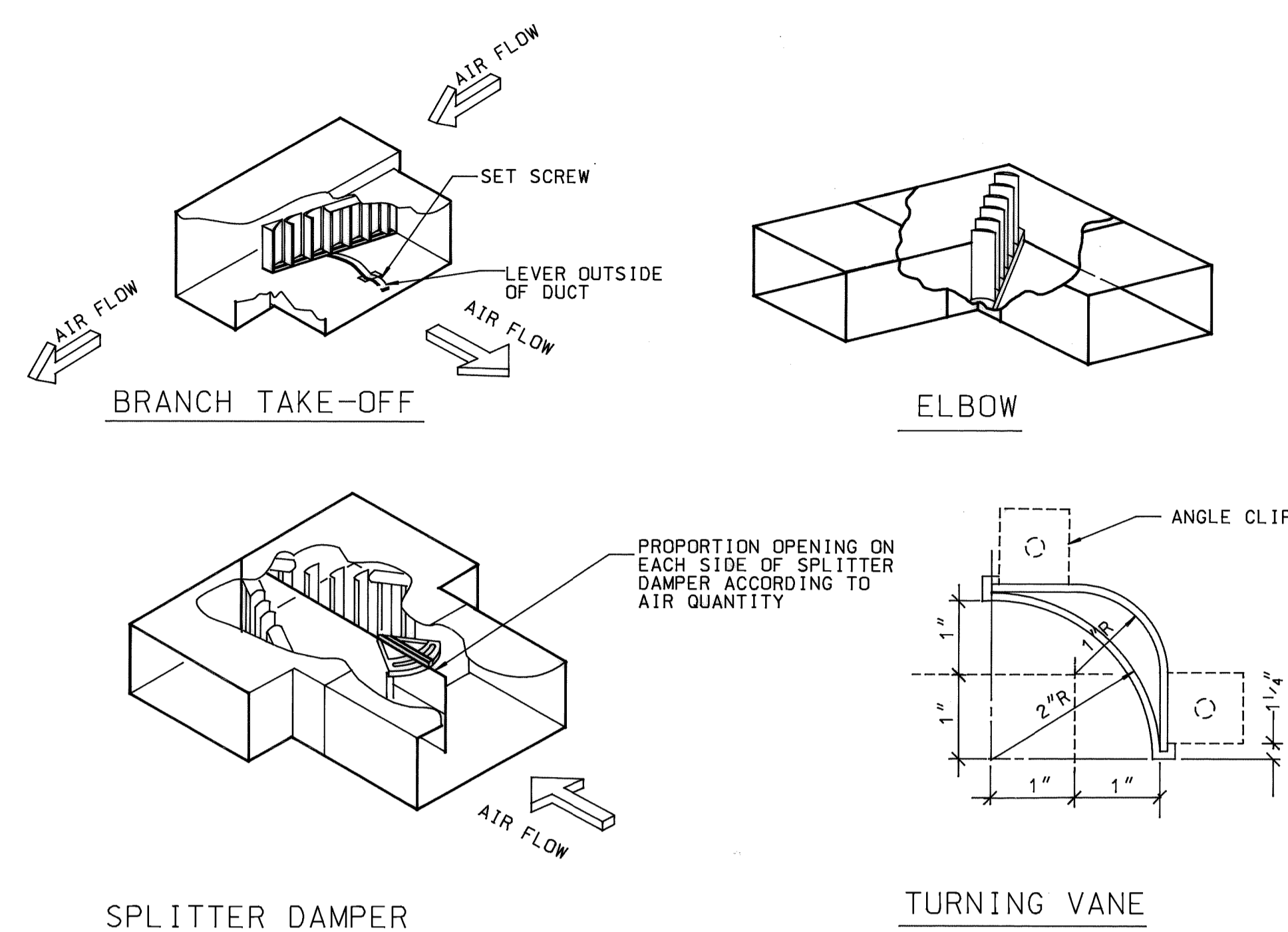
PROJECT NUMBER CNBC 860072

4 SHEETS SH. M-2



K.M. Ng & Associates, Inc.
Consulting Engineers
San Antonio, Texas 78201

15



NOTE: INSTALLATION SHALL MEET OR EXCEED UL AND NFPA REQUIREMENTS.

