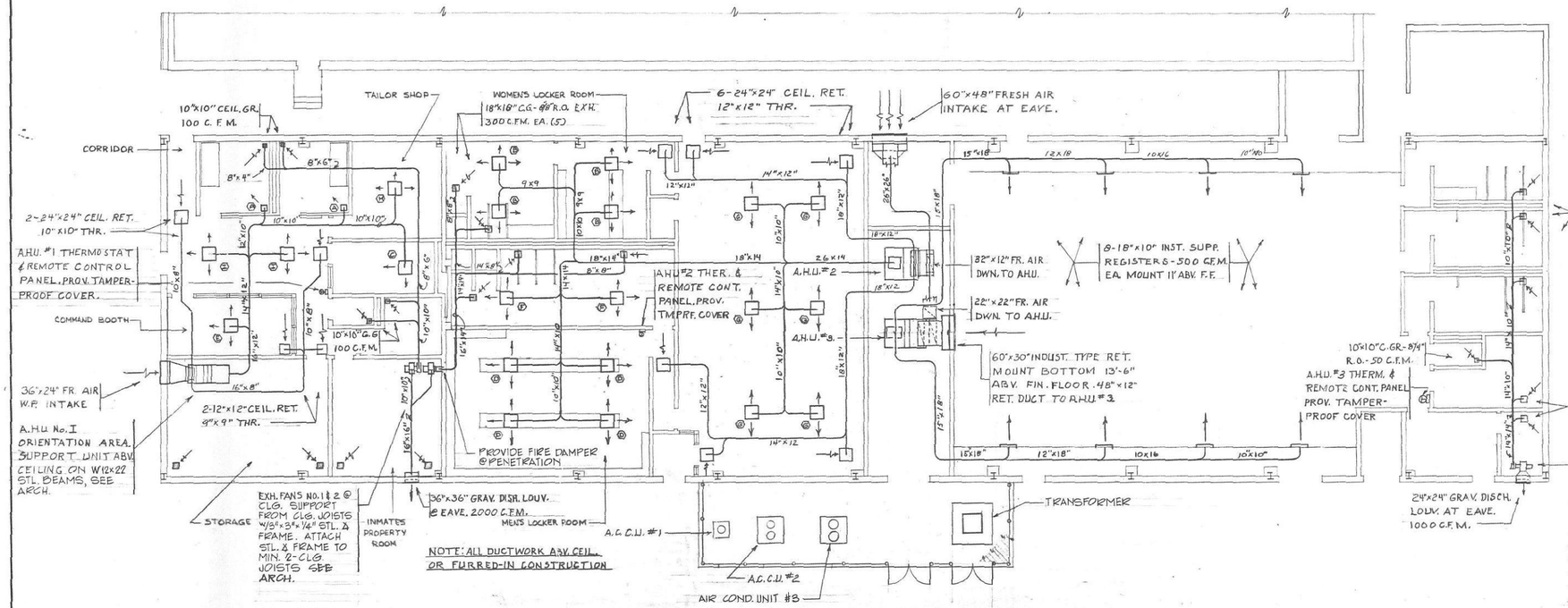
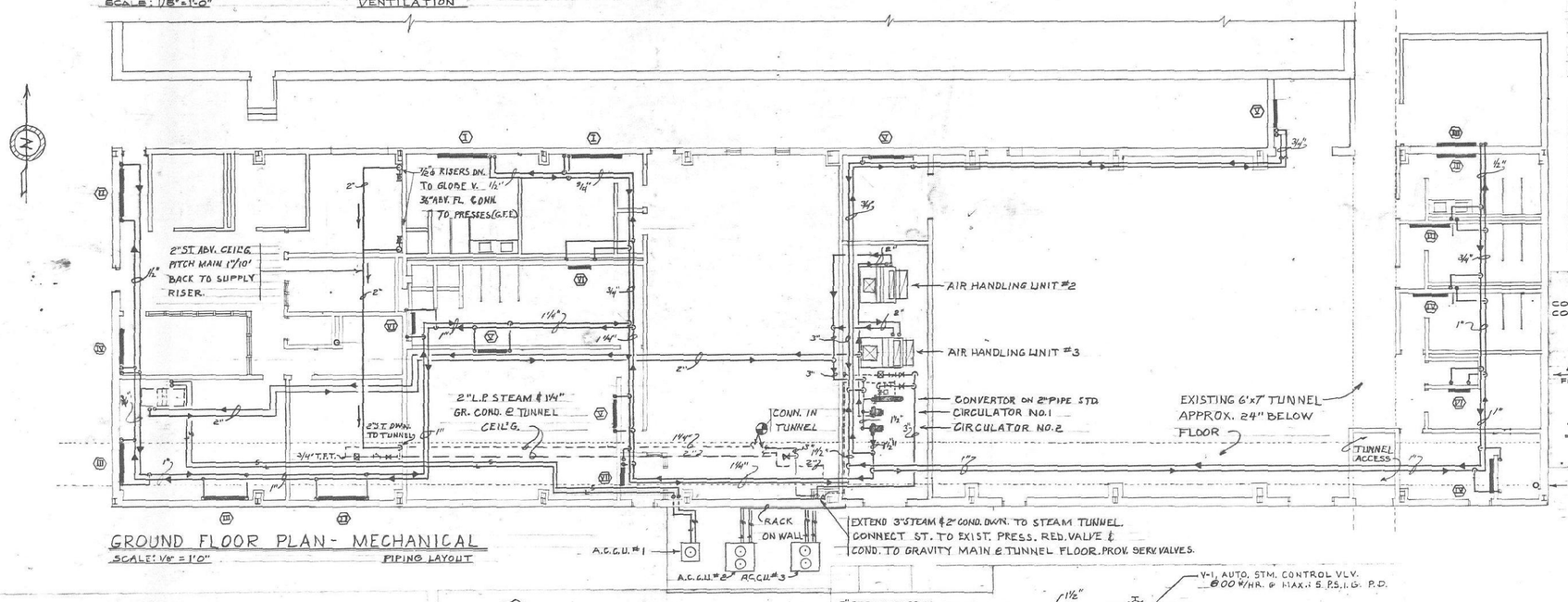


GROUND FLOOR PLAN - MECHANICAL

SCALE: 1/8"=1'-0" — VENTILATION



GROUND FLOOR PLAN - MECHANICAL

SCALE: 1/8"=1'-0" — PIPING LAYOUT

DIFFUSER SCHEDULE

SYMBOL	MODULE	THROAT	PATTERN	C.F.M.
A	12"x 12"	6" x 6"	2-WAY	120
B	24"x 24"	6" x 6"	4-WAY	120
C	24"x 24"	9" x 9"	3-WAY	145
D	24"x 24"	9" x 9"	4-WAY	180
E	24"x 24"	9" x 9"	4-WAY	190
F	24"x 24"	9" x 9"	4-WAY	200
G	24"x 24"	9" x 9"	4-WAY	215
H	24"x 24"	9" x 9"	4-WAY	225
I	24"x 24"	9" x 9"	4-WAY	250

INSTITUTIONAL RADIATION

SYMBOL	SECTIONS	LENGTH	HGT	CAP/MBH	CONN.
II	42	85"	26"	12.9	½"
III	38	77"	26"	11.8	½"
IV	32	65"	26"	10.0	½"
V	28	57"	26"	8.8	½"
VI	23	47"	26"	7.3	½"
VII	17	35"	26"	5.4	½"
VIII	13	27"	26"	4.2	½"

190° AV. WATER TEMP. - 20° DR. - 65° ENT. AIR - 16 F.P.M.-10#

AIR HANDLING UNIT SCHEDULE

NO.	TYPE	C.F.M.	MOTOR	TOT. S.P.	FAN	R.P.M.
1	HORIZ.	1300	½ HP 3Φ - 208V. 1750 R.P.M.	0.75"	9" F.C.	1080
2	VERT.	3000	1½ HP 3Φ 208V. 1750 R.P.M.	1.25"	15" F.C.	780
3	VERT	4000	2 HP 3Φ 208V 1750 R.P.M.	1.5"	16.5" F.C.	775

NO.	COOLING COIL 42° S.T. F. AREA	WIDTH	LENGTH	ROWS	E.D.B.	E.W.B.	L.D.B.	L.W.B.	M.P.H.
1	3.0 #	18"	24"	4	82.0	66.0	56.0	54.0	42.9
2	7.5 #	30"	36"	4	84.0	71.0	54.4	54.0	165.1
3	9.4 #	30"	45"	4	82.0	68.0	54.4	54.0	174.1

NO.	HEATING COIL - 10° DR - ENT WTR 160° F. AREA	WIDTH	LENGTH	ROWS	EDB	LDB	MBH	G.P.M.
1	3.0 #	18"	24"	1	52.0	100	68.64	28
2	7.5 #	30"	36"	1	48.5	100	190.0	38
3	9.4 #	30"	45"	1	51.0	100	215.6	43

CONDENSING UNIT SCHEDULE (95°/75° AMB. -40° S.S. - R22)

NO.	T.M.B.H.	COMPR.	COND. FANS	REFR. - CONNS	SERVES
1	48.0	1 - 5 HP.	1 - ½ HP.	1-⅝ LIQ. 1-1⅜ SUCT.	A.H.U. 1
2	170.0	2-7.5 HP.	3-0.75 HP.	2-⅞ LIQ. 2-1⅜ SUC.	A.H.U. 2
3	175.0	2-7.5 HP.	3-0.75 HP.	2-⅞ LIQ. 2-1⅜ SUCT.	A.H.U. 3

ELECTRIC: 208V. - 3Φ - 60~

CENTRIFUGAL EXHAUST FANS

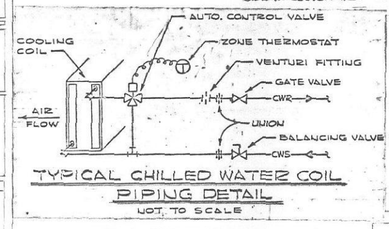
NO.	C.F.M.	S.P.	MOTOR	ELECTRIC	SERVES
1	500	½"	⅙ HP.	120 V. - 1Φ - 60~	ADMIN. AREA
2	1500	½"	⅓ HP.	120 V. - 1Φ - 60~	OFF. ASSEMBLY
3	1000	½"	⅓ HP.	120 V. - 1Φ - 60~	VISIT. CNTR.

SYMBOLS

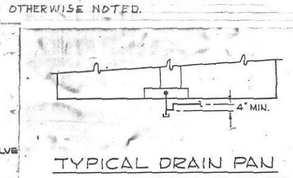
- STEAM
- CONDENSATE
- HOT WTR. CIRC.
- REFR. SUCT.
- REFR. LIQU.
- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- STRAINER
- UNION
- THERMOSTAT
- THERM. BUCKET TR.

NOTES

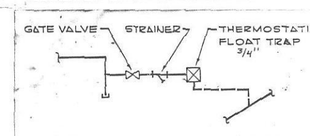
1. EXIST. BLDG. TO HAVE ALL INTERIOR WALLS, APPURTENANCES REMOVED TO EXTERIOR WALLS & ROOF. THIS WORK INCLUDES THE REMOVAL OF ALL WALL HUNG RADIATION (13), 3-1½" HOSE RACKS, CEILING STEAM MAIN, WALL HUNG CONDENSATE, G.I. WATER MAIN, EXTRANEOUS GAS & AIR PIPES, ETC. TO CLEAN OUT BLDG. SHELL. LINE L.P. STEAM, GRAVITY CONDENSATE, COLD WATER TO BE REMOVED TO SOURCE. NEW PIPING SYSTEMS RUN FROM SOURCES AS SHOWN.
2. SEE ARCHITECTURAL DRAWINGS FOR LOUVER DETAILS.
3. ALL PIPING ABOVE CEILINGS OR FURRED-IN EXCEPT RISERS ON OUTSIDE WALLS, UNLESS OTHERWISE NOTED.



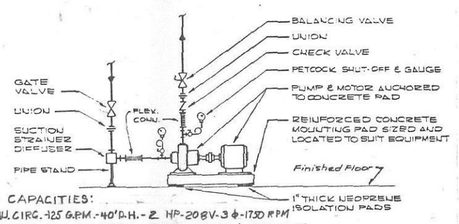
TYPICAL CHILLED WATER COIL PIPING DETAIL
NOT TO SCALE



TYPICAL DRAIN PAN CONNECTION AT UNIT
NO SCALE

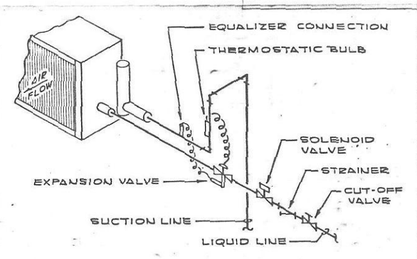


TYPICAL END OF LINE DRIP CONNECTION
NO SCALE

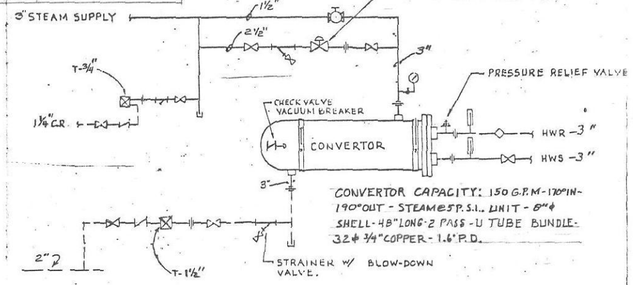


PUMP CAPACITIES:
NO. 1-A.H.U. CIRC. -125 G.P.M. -40' D.H. - ¾ HP - 208 V - 3 Φ - 1750 R.P.M.
NO. 2-RAD. CIRC. -206 G.P.M. -20' D.H. - ¼ HP - 120 V - 1 Φ - 1750 R.P.M.

TYPICAL PUMP DETAIL
NOT TO SCALE



TYPICAL A.C. UNIT COIL PIPING DETAIL
NO SCALE



CONVERTOR PIPING DETAIL
NO SCALE

DISTRICT OF COLUMBIA — RICHARD L. LUTZ — No. 2678 — REGISTERED PROFESSIONAL ENGINEER

Richard L. Lutz

ASSISTANT DIRECTOR FOR BUREAU OF DESIGN AND ENGINEERING — DATE 2/13/84

DESIGNED R.L.L.
DRAWN FTM - R.L.L.
CHECKED R.L.L.

CERTIFICATION

MECHANICAL PLANS CERTIFIED AS PROVIDED IN D.C.H.D. REGULATIONS OF AUGUST 30, 1978

REGISTRATION NO. 2678 — DATE Dec 15 1982

ARCHITECT — DATE 2-10-84

REVISION	DATE	DESCRIPTION	BY	APP.
	FEB 21 1984	ISSUED FOR BIDS		

PROJECT DRAWINGS

MECHANICAL

RENOVATION, BUILDING F-1A MAXIMUM SECURITY GROUND FLOOR MECHANICAL PLANS

LORTON IMPROVEMENTS - CENTRAL FACILITY CIVIL ACTION

DEPARTMENT OF CORRECTIONS, LORTON, VA.

AUSTIN L. SPRIGGS ASSOCIATES
433 MASSACHUSETTS AVENUE, N.W., WASHINGTON, D.C. 20001

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES

DRAWING NO. M-1

PROJECT NO. F-82241-778

DATE 2-10-84

SHEET 24 OF 26