



15 BUILDING

REVISIONS

DATE

RECORD DRAWING

CORRECTED ON BASIS OF DATA

FURNISHED BY THE RESIDENT ENGINEER

Key Plan

Seal

RTKL/C&S/HENRY ADAMS (LTV)

ARCHITECTS AND ENGINEERS

400 E. PRATT STREET

BALTIMORE, MD 21202

SCHEDULES

HVAC

Approved Project Director

Project Title

324-BED REPLACEMENT HOSPITAL - PHASE II

Project No.

511-001 D

Drawing No.

1-H2

Date

9/1/88

Project Title

324-BED REPLACEMENT HOSPITAL - PHASE II

Project No.

511-001 D

Drawing No.

1-H2

Date

9/1/88

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AIR CONDITIONING UNITS (SYSTEMS)																										
1-AC UNIT NO.	LOCATION	AREA SERVED	SUPPLY/RETURN RELATIONSHIP		TYPE OF SYSTEM	CFM	X	CFM	IN. V.O. T.S.P.	WHEEL TYPE	MIN. D.I.A.	MAX. RPM	MOTOR		VARIABLE FREQUENCY DRIVE	SERVICE	CFM	MAX. F.P.C. LOSS	WATER COILS		CIRCULATING FLUID		DISCHARGE			
			REDUCED SA	REDUCED RA									HP	PHASE VOLT					ENT. AIR °F.	LVG. AIR °F.	TEMP. °F.	TEMP. °F.		MAX. LOSS	MIN. RPM	(P.O.D. SIZE WHEN REQUIRED)
1	A	PHARMACY AREA "A"	4400	5500	VARIABLE VOLUME RET. AIR - 12 HR.	2900	34	6800	5.50	AF	20	2100	15	3	YES	COOLING	6800	500	0.75	66.5	71.0	57.0	56.5	12	408	60 X 16
2	B	RESEARCH AREA "B"	2400	—	CONSTANT VOLUME RET. AIR - 24 HR.	2400	100	25400	6.75	AF	30	1600	40	9	NO	PREHEAT	25400	485	1.50	97.0	78.0	54.0	53.5	11	2210	108 X 22
3	C	SURPLY AREA "C"	12000	10000	SINGLE ZONE 24 HR.	12000	17	12650	3.75	AF	22 1/4	1800	15	3	NO	COOLING	12600	425	0.40	83.5	67.0	57.0	56.5	9	431	72 X 20
4	D	SHOP & SPT AREA "D"	21940	—	CONSTANT VOLUME RET. AIR - 12 HR.	21940	100	23840	6.25	AF	27	1750	40	3	NO	PREHEAT	23840	440	1.10	97.0	78.0	54.0	53.5	15	2032	104 X 28
5	A	DIETETIC BARBERENT AREA "A"	12410	—	CONSTANT VOLUME RET. AIR - 12 HR.	12410	100	13030	6.00	AF	22 1/4	2000	20	460	NO	PREHEAT	13030	425	0.70	97.0	78.0	57.0	56.5	12	1044	72 X 20
6	D	EMERGENCY AREA "D"	3000	2100	CONSTANT VOLUME RET. AIR - 24 HR.	900	30	3200	5.25	B1	12 1/4	3200	5	3	NO	COOLING	3200	425	0.45	86.0	70.5	57.0	56.5	4	635	42 X 12
7	B	OUTPATIENT AREA "B"	15640	10600	VARIABLE VOLUME RET. AIR - 12 HR.	2040	16	13270	6.50	AF	22 1/4	2100	25	460	YES	COOLING	13270	425	0.45	83.0	66.5	57.0	56.5	8	480	72 X 20
8	C	LABORATORY AREA "C"	21300	16800	VARIABLE VOLUME RET. AIR - 12 HR.	4500	21	22500	6.00	AF	30	1450	30	3	YES	COOLING	22500	430	0.45	84.5	68.0	57.0	56.5	15	832	108 X 22
9	D	LABORATORY CARE AREA "D"	9200	7300	VARIABLE VOLUME RET. AIR - 12 HR.	1900	21	9600	6.50	AF	20	2300	20	460	YES	PREHEAT	9200	425	0.45	84.5	68.5	57.0	56.5	4	619	60 X 18
10	A	LIBRARY/COMPL AREA "A"	11300	10300	VARIABLE VOLUME RET. AIR - 12 HR.	1700	15	11900	6.00	AF	22 1/4	2000	20	460	YES	COOLING	11900	425	0.45	83.5	68.0	57.0	56.5	7	461	72 X 16
11	B	CREDIT UNION AREA "B"	10400	6700	VARIABLE VOLUME RET. AIR - 12 HR.	1700	16	11000	6.00	AF	20	2300	20	460	YES	PREHEAT	11000	480	0.50	83.0	69.5	57.0	56.5	10	455	72 X 16
12	C	CANTEEN AREA "C"	12000	—	VARIABLE VOLUME RET. AIR - 12 HR.	12000	100	12600	6.50	AF	22 1/4	2100	25	460	YES	COOLING	12600	425	0.75	97.0	78.0	54.0	53.5	13	1111	72 X 20
13	C	LABORATORY AREA "C"	17400	13250	VARIABLE VOLUME RET. AIR - 12 HR.	4150	24	18300	6.25	AF	27	1650	30	3	YES	PREHEAT	18300	500	0.60	85.0	70.0	57.0	56.5	7	1555	108 X 30
14	D	REHAB./DENTAL AREA "D"	16000	8000	VARIABLE VOLUME RET. AIR - 12 HR.	7600	48	16800	6.25	AF	24 1/2	1950	30	460	YES	COOLING	16800	500	0.55	88.5	72.5	51.0	50.5	9	907	78 X 22
15	A	NURSING UNIT AREA "A"	9900	5000	VARIABLE VOLUME RET. AIR - 24 HR.	4800	49	10300	6.00	AF	20	2300	20	3	YES	COOLING	10300	450	0.80	89.0	72.0	54.0	53.5	4	630	60 X 18
16	B	NURSING UNIT AREA "B"	9600	4900	VARIABLE VOLUME RET. AIR - 24 HR.	4700	49	10100	6.00	AF	20	2300	20	3	YES	PREHEAT	10100	440	0.75	89.0	72.0	54.0	53.5	15	618	60 X 18
17	C	LABORATORY AREA "C"	25500	—	CONSTANT VOLUME RET. AIR - 12 HR.	25500	100	31000	6.50	AF	30	1650	50	3	NO	COOLING	31000	440	1.00	97.0	78.0	54.0	53.5	15	2722	108 X 30
18	D	LABORATORY AREA "D"	17100	12400	VARIABLE VOLUME RET. AIR - 12 HR.	4700	27	18000	6.25	AF	27	1650	30	3	YES	COOLING	18000	460	0.60	85.5	70.0	57.0	56.5	13	810	78 X 22
19	A	NURSING AREA "A"	12800	7200	VARIABLE VOLUME RET. AIR - 24 HR.	5000	41	12800	6.25	AF	22 1/4	2100	25	460	YES	PREHEAT	12800	425	0.55	87.5	71.5	54.0	53.5	15	714	72 X 20
20	B	NURSING AREA "B"	9600	5100	VARIABLE VOLUME RET. AIR - 24 HR.	4500	47	10100	6.00	AF	20	2300	20	460	YES	PREHEAT	10100	450	0.75	88.5	71.5	54.0	53.5	15	591	60 X 18
21	C	NURSING AREA "C"	17400	11900	VARIABLE VOLUME RET. AIR - 24 HR.	5500	46	18300	6.50	AF	24 1/2	2100	30	3	YES	COOLING	18300	470	0.85	84.0	72.0	57.0	56.5	15	939	96 X 22
22	D	LABORATORY AREA "D"	35750	4700	CONSTANT VOLUME RET. AIR - 12 HR.	31050	67	37500	6.75	AF	36 1/2	1400	60	460	NO	PREHEAT	37500	510	1.50	94.0	77.0	54.0	53.5	10	1536	120 X 32
23	A	NURSING AREA "A"	12200	7200	VARIABLE VOLUME RET. AIR - 24 HR.	5000	41	12600	6.25	AF	22 1/4	2100	25	460	YES	COOLING	12200	425	0.55	87.5	71.5	54.0	53.5	15	714	72 X 20
24	B	NURSING AREA "B"	9600	5300	VARIABLE VOLUME RET. AIR - 24 HR.	4300	45	10100	6.00	AF	20	2300	20	3	YES	COOLING	10100	450	0.70	88.0	71.5	54.0	53.5	15	573	60 X 18
25	C	RECOVERY/STUDY AREA "C"	16100	12000	VARIABLE VOLUME RET. AIR - 24 HR.	4100	25	18900	6.50	AF	24 1/2	1950	30	460	YES	COOLING	16900	500	0.60	85.0	70.0	57.0	56.5	15	720	78 X 22
26	D	ADMT. AREA "D"	6000	5000	VARIABLE VOLUME RET. AIR - 12 HR.	1000	17	6500	5.75	B1	16 1/2	2000	15	460	YES	COOLING	6500	425	0.50	84.0	68.5	57.0	56.5	6	232	54 X 14
27	A	PSYCHIATRIC INTENSIVE CARE AREA "A"	13200	9900	VARIABLE VOLUME RET. AIR - 24 HR.	3300	26	13800	6.00	AF	22 1/4	2000	25	3	YES	COOLING	13800	425	0.55	85.0	68.5	54.0	53.5	14	651	78 X 22
28	B	PSYCHIATRIC ABUSE AREA "B"	10800	7800	VARIABLE VOLUME RET. AIR - 24 HR.	3000	28	11500	6.00	AF	22 1/4	2000	20	460	YES	PREHEAT	11500	500	0.85	85.5	69.0	54.0	53.5	15	559	72 X 18
29	C	CLINICS AREA "C"	16800	14600	VARIABLE VOLUME RET. AIR - 12 HR.	2200	15	17600	6.50	AF	27	1650	30	3	YES	COOLING	17600	450	0.65	83.5	67.0	54.0	53.5	12	745	96 X 22
30	D	ADMINISTRATION AREA "D"	15500	13000	VARIABLE VOLUME RET. AIR - 12 HR.	2500	16	16300	6.00	AF	24 1/2	1950	30	3	YES	COOLING	16300	490	0.55	83.5	68.5	57.0	56.5	12	616	78 X 22
31	PENT-HOUSE	V. CONTROL E. AIR LIFT	27600	19700	VARIABLE VOLUME RET. AIR - 12 HR.	7900	29	29000	5.75	AF	33	1400	40	3	YES	COOLING	29000	480	0.85	85.5	69.0	54.0	53.5	14	1383	108 X 30
32	C	SURGICAL UNIT AREA "C"	13900	—	CONSTANT VOLUME REHEAT - 12 HR.	19800	100	20400	6.75	AF	27	1800	40	460	YES	PREHEAT	20400	425	0.90	97.0	78.0	51.0	50.5	14	2022	108 X 22
33	A	ELEV. P1, P2, P3	2200	2200	CONSTANT VOLUME COOLING ONLY	0	0	2200	2.0	FC	12	1200	2	460	NO	COOLING	2200	500	0.75	95.0	69.0	55.0	53.0	15	111	16 X 16
34	A	ELEV. P4, P5, P6	2200	2200	CONSTANT VOLUME COOLING ONLY	0	0	2200	2.0	FC	12	1000	2	460	NO	COOLING	2200	500	0.75	95.0	69.0	55.0	53.0	15	111	16 X 16
35	A	ELEV. P7, P8, P9	2700	2700	CONSTANT VOLUME COOLING ONLY	0	0	2700	1.75	FC	15	1000	3	460	NO	COOLING	2700	500	0.60	95.0	69.0	55.0	53.0	15	137	19 X 19

NOTES :

1

HORIZONTAL SURFACE MOUNTED AT CEILING.

ENERGY EFFICIENT MOTORS

SCHEDULED HP	NOMINAL MEHA EFF.	SCHEDULED HP	NOMINAL MEHA EFF.	SCHEDULED HP	NOMINAL MEHA EFF.
1.0 E	82.5	10 E	89.5	50 E	91.7
1.5 E	84.0	15 E	90.2	60 E	91.7
2.0 E	84.0	20 E	90.2	75 E	91.7
3.0 E	86.5	30 E	91.0	100 E	92.4
5.0 E	88.5	50 E	91.0	125 E	92.4
7.5 E	89.5	40 E	91.7	150 E	93.0

NOTES :

1

REFER TO "MOTORS" SECTION OF THE SPECIFICATIONS.

2

ALL MOTORS 1 HP AND LARGER SHALL BE ENERGY EFFICIENT (EXCEPT FOR CONDENSATE PUMPS).

3

ALL MOTORS SHALL BE 1750 RPM.

AIR CONDITIONING DESIGN DATA

DESIGN AREA	SUMMER				WINTER			
	DB	WB	DB	WB	OUTSIDE DB	INSIDE DB	OUTSIDE DB	INSIDE DB
PATIENT AREAS *	94	78	78	50	10	72	72	50
OPERATING ROOM *	94	78	68	55	10	75	75	50
ANTH. AREA *	94	78	65	60	10	75	75	30
KITCHEN & CANTINE *	94	78	82	71	10	70	70	-
OTHER ROOMS *	94	78	78	50	10	72	72	30
ELECTRIC ELEV. MACH. RM. *	94	-	55	-	10	65	-	-
HYDRAULIC ELEV. MACH. RM. *	94	-	51	-	10	65	-	-
EQUIP. RM. & SERVICE BAYS ***	94	-	100	-	10	65	-	-
INTERMITTENT SPACE **	94	78	65	-	10	70	-	-
DRY WALK ROOMS **	-	-	-	-	10	70	-	-
STAIRS **	-	-	-	-	10	65	-	-
OTHER UNOCCUPIED **	-	-	-	-	10	60	-	-
RESEARCH LABS *	94	78	78	50	10	72	72	30
CLINICAL LABS *	94	98	72	50	10	72	72	30
PHARMACY *	94	78	75	50	10	70	70	30
SURPLY. SERVICE *	94	78	80	55	10	70	-	-

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