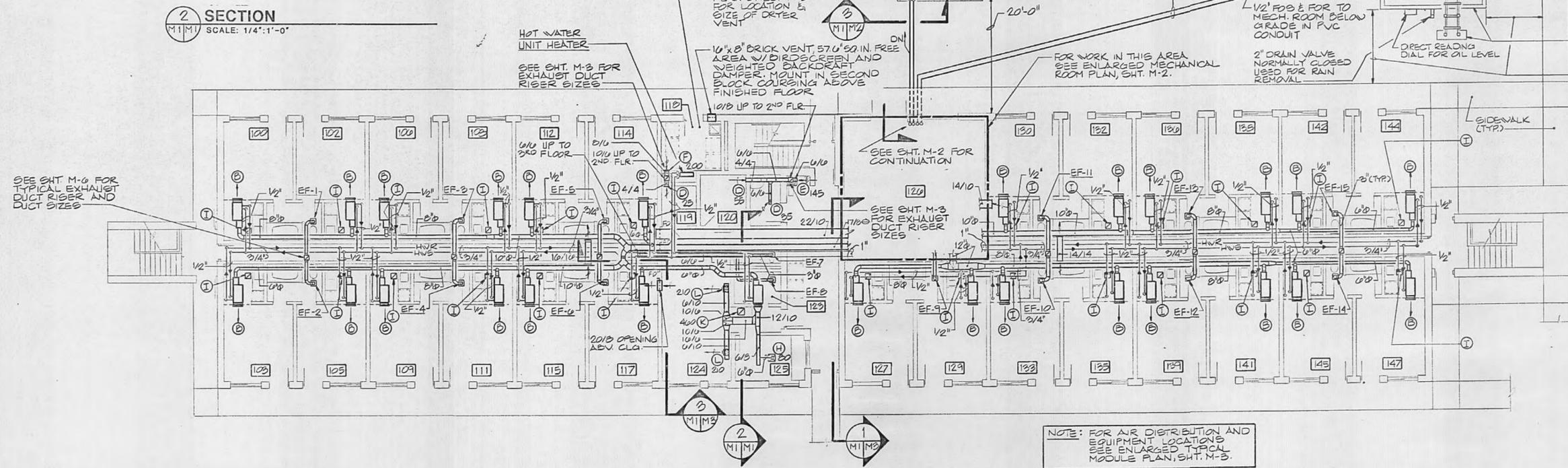
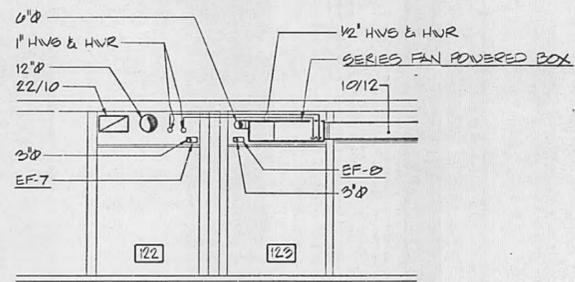


REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED



FIRST FLOOR MECHANICAL PLAN (BEQ)
SCALE: 1/8"=1'-0"

NOTE: ALL CONNECTIONS TO SERIES FAN POWERED BOXES SHALL HAVE MIN. 1/2" x DIA. OF STRAIGHT DUCT PRIOR TO CONNECTION.

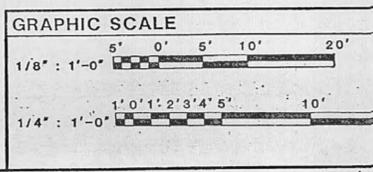
LEGEND

<p>△ INSULATION ASBESTOS SYMBOL</p> <p>○ DEMOLITION NOTES</p> <p>□ NEW WORK NOTES</p> <p>—HWS— HOT WATER SUPPLY</p> <p>—HWR— HOT WATER RETURN</p> <p>—D— CONDENSATE DRAIN</p> <p>—RL— REFRIGERANT LIQUID</p> <p>—RS— REFRIGERANT SUCTION</p> <p>—FOS— FUEL OIL SUPPLY</p> <p>—FOR— FUEL OIL RETURN</p> <p>○ PIPE TURNING UP</p> <p>○ PIPE TURNING DOWN</p> <p>—X— PIPE ANCHOR</p> <p>— — PIPE GUIDE</p> <p>—DN— DIRECTION OF PITCH DOWN</p> <p>—>— DIRECTION OF FLOW</p> <p>— >— GATE VALVE</p> <p>— >— GLOBE VALVE</p> <p>— >— BALANCING VALVE (W/FLOW FITTINGS)</p> <p>— >— METERED BALANCING VALVE</p> <p>— >— PRESSURE REDUCING VALVE</p> <p>— >— PRESSURE RELIEF VALVE</p> <p>— >— THREE-WAY CONTROL VALVE</p> <p>— >— STRAINER</p> <p>— >— STRAINER WITH BLOW DOWN VALVE (4" AND LARGER ONLY)</p> <p>— >— UNION</p> <p>— >— PRESSURE GAUGE WITH GAUGE COCK</p> <p>— >— THERMOMETER</p> <p>— >— CHECK VALVE</p> <p>— >— I.H.P. INCREMENTAL HEAT PUMP</p>	<p>○ POINT OF CONNECTION NEW TO EXISTING</p> <p>○ POINT OF DEMOLITION LIMIT</p> <p>— >— FLEXIBLE PIPE CONNECTOR</p> <p>— >— BUTTERFLY VALVE</p> <p>— >— MANUAL AIR VENT</p> <p>— >— EXHAUST FAN</p> <p>— >— PUMP</p> <p>— >— AHU-1 AIR HANDLING UNIT</p> <p>— >— B-1 BOILER</p> <p>— >— WALL THERMOSTAT OR TEMPERATURE SENSOR</p> <p>— >— ACCU-1 AIR COOLED CONDENSING UNIT</p> <p>— >— CEILING DIFFUSER WITH DIRECTION OF FLOW</p> <p>— >— RETURN REGISTER/EXHAUST REGISTER</p> <p>— >— VOLUME EXTRACTOR</p> <p>— >— SPLITTER DAMPER</p> <p>— >— MITERED ELBOW WITH TURNING VANES</p> <p>— >— FLEXIBLE CONNECTOR</p> <p>— >— MANUAL VOLUME DAMPER</p> <p>— >— MOTORIZED DAMPER</p> <p>— >— DUCT TURNING UP</p> <p>— >— DUCT TURNING DOWN</p> <p>— >— DIFFUSER OR REGISTER DESIGNATION WITH CFM</p> <p>— >— DOOR LOUVER</p> <p>— >— PRESSURE DROP</p> <p>— >— S.P. STATIC PRESSURE</p> <p>— >— FLAT OVAL DUCT</p> <p>— >— L.P.S. LOW PRESSURE STEAM</p> <p>— >— L.P.C. LOW PRESSURE CONDENSATE</p> <p>— >— R.H.P. ROOFTOP HEAT PUMP UNIT</p> <p>— >— FIRE DAMPER</p>
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GENERAL NOTES (APPLIES TO ALL SHEETS)

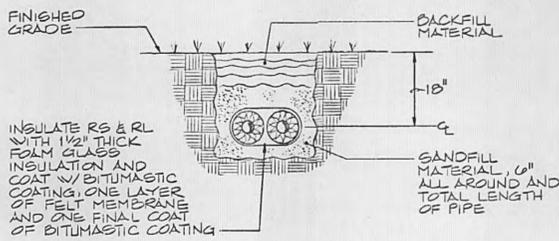
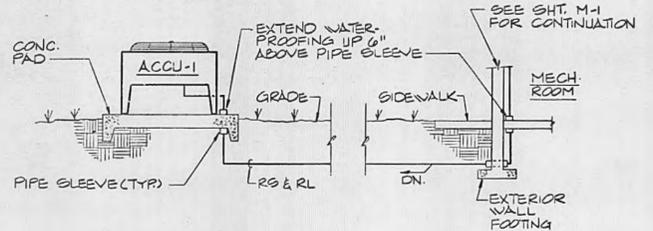
- LOCATE MANUAL AIR VENTS AT ALL HIGH POINTS IN WATER SYSTEMS AND WHERE INDICATED.
- ALL HORIZONTAL PIPING AND DUCTWORK SHALL BE RUN ON FLOOR PLAN WHERE INDICATED. ALL HORIZONTAL DUCTWORK IN AREAS WITH CEILINGS SHALL BE RUN ABOVE CEILING.
- MECHANICAL EQUIPMENT SHALL BE CLOSELY COORDINATED WITH STRUCTURAL, ELECTRICAL AND PLUMBING SYSTEMS TO INSURE THAT ALL TRADES WILL NOT CONFLICT WITH EACH OTHER.
- DUCT PENETRATIONS OF ALL WALLS SHALL BE MADE WITH SHEET METAL DUCTS. FLEXIBLE DUCT PENETRATIONS OF WALLS IS PROHIBITED.
- CUT OPENINGS, AS REQUIRED, FOR THE INSTALLATION OF PIPING, DUCTWORK, AND EQUIPMENT.
- CORE DRILL ALL PIPING PENETRATIONS THROUGH STRUCTURE OR CHIP CONCRETE AND PROVIDE PIPE SLEEVE.
- DO NOT SCALE THE MECHANICAL DRAWINGS. DRAWINGS ARE DIAGRAMMATIC. VERIFY ALL LOCATIONS BEFORE CUTTING ANY WALL/ROOF/FLOORS, ETC.
- SEE REFLECTED CEILING PLANS FOR EXACT LOCATION OF DIFFUSERS AND REGISTERS. SEE SHEET A-10 FOR BEQ CEILING PLANS, SHT A-17 FOR BOQ CEILING PLAN AND SHT A-21 FOR EDF CEILING PLAN.
- DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. ACOUSTICAL DUCT LINING IS SHOWN FOR AHU-1 ONLY. SEE SHT M-2.

DESIGN CONDITIONS		
	SUMMER	WINTER
INDOOR	78°F/50% RH.	68°F
OUTDOOR	92°F/79°F	25°F



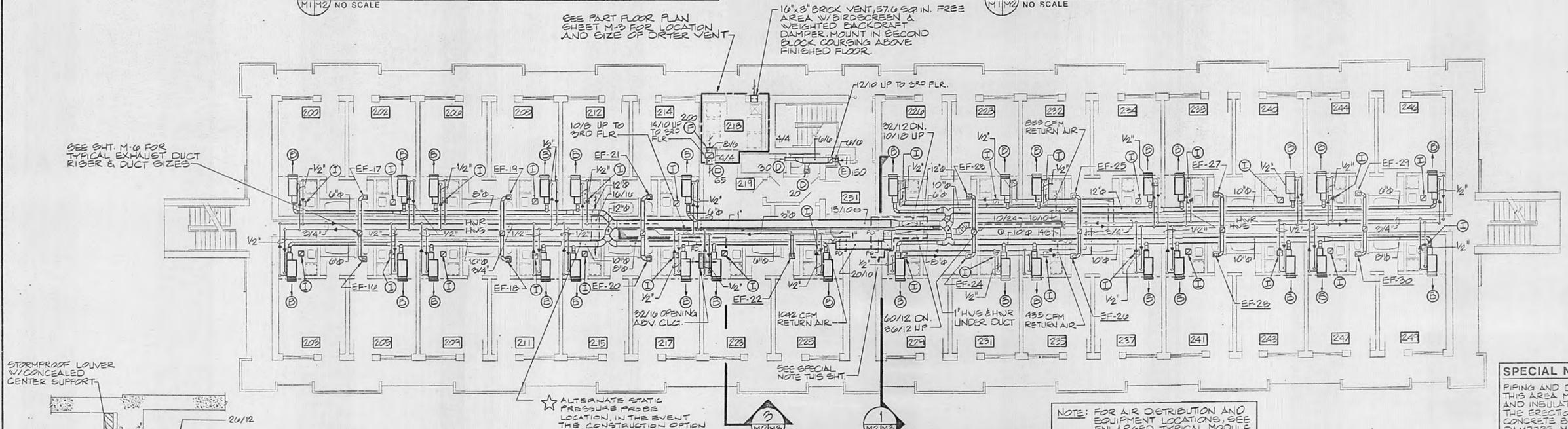
	<p>PROFESSIONAL ARCHITECTURAL CONSULTING ENGINEERS</p> <p>WILLIAMS, TAZEWELL AND COOK</p> <p>ARCHITECTURE, ENGINEERING, PLANNING, INTERIORS</p> <p>NORFOLK, VIRGINIA</p>	<p>DEPARTMENT OF THE NAVY</p> <p>NAVAL FACILITIES ENGINEERING COMMAND</p> <p>ATLANTIC DIVISION</p> <p>NAVAL STATION NORFOLK, VA.</p>	<p>M-1</p>
	<p>EDF DWS NO 285954</p> <p>JOB ORDER NO 5F7126</p> <p>SIA PROJ NO</p> <p>DES PJD DRWN WSH</p> <p>PROJ MGR RWB CH ARCH/ENGR</p> <p>EDF RVD</p> <p>APPROVED DATE</p> <p>ACTIVITY-SATISFACTORY TO</p> <p>APPROVED DATE 3-11-59</p> <p>FOR EFP FOR COMMANDER NAVFAC</p>	<p>ROTHR PERSONNEL SUPPORT FACILITIES</p> <p>NSGA NORTHWEST, CHESAPEAKE, VIRGINIA</p> <p>BEQ, BOO, & EDF ADDITION</p> <p>BEQ MECH. FIRST FLOOR PLAN & LEGEND</p> <p>SIZE CODE DENT NO</p> <p>F 80091</p> <p>NAVFAC DRAWING NO</p> <p>4195954</p> <p>CONTRA CONTR NO N62470-87-B-7126</p> <p>SCALE NOTED SPEC 05-87-7126</p> <p>SHEET 55 OF 76</p>	

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

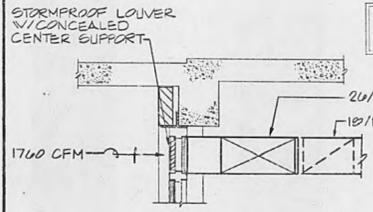


4 SECTION
M1/M2 NO SCALE

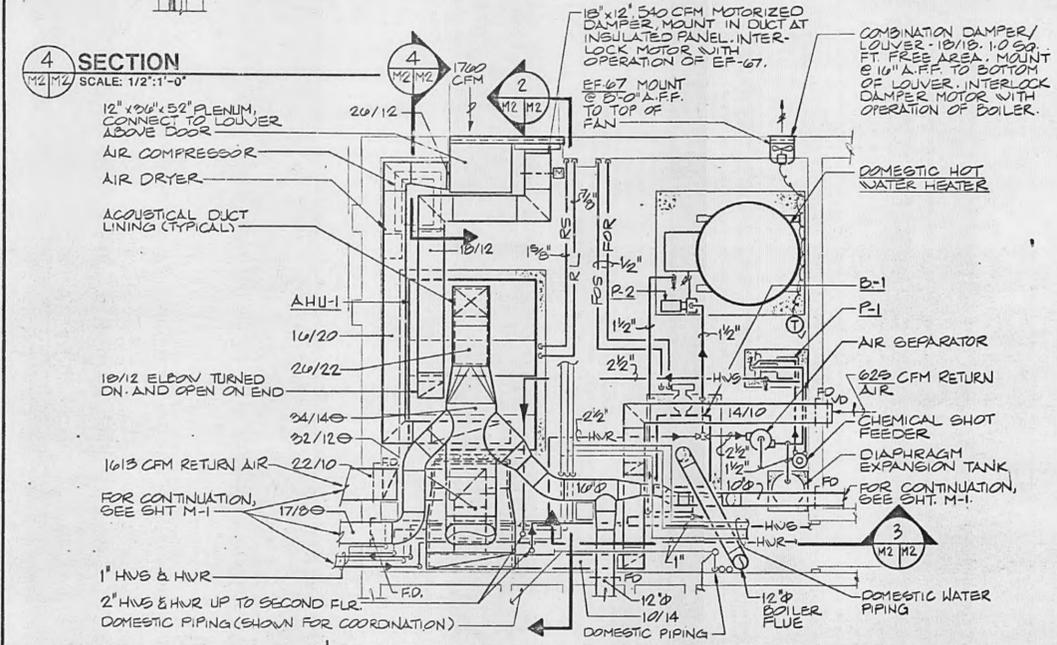
3 SECTION
M1/M2 NO SCALE



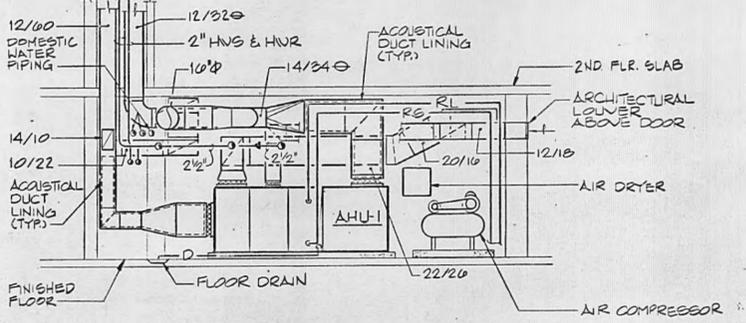
SECOND FLOOR MECHANICAL PLAN
SCALE: 1/8"=1'-0"



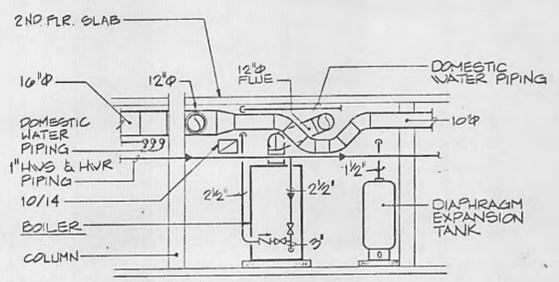
4 SECTION
M2/M2 SCALE: 1/2"=1'-0"



ENLARGED MECHANICAL ROOM PLAN [126]-BEQ
SCALE: 1/4"=1'-0"



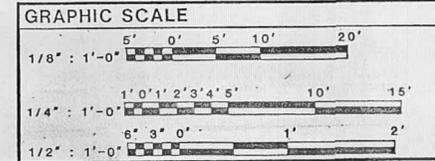
2 SECTION
M2/M2 SCALE: 1/4"=1'-0"



3 SECTION
M2/M2 SCALE: 1/4"=1'-0"

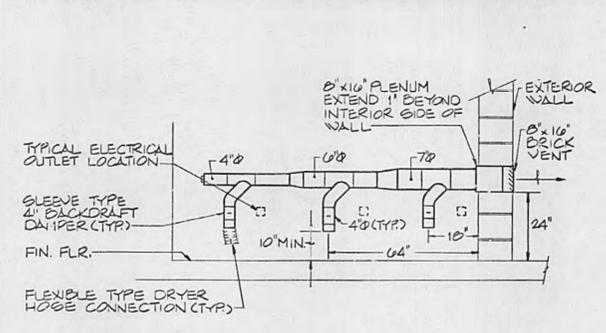
SPECIAL NOTE:
PIPING AND DUCTWORK IN THIS AREA MUST BE IN PLACE AND INSULATED PRIOR TO THE ERECTION OF THE CONCRETE BLOCK. FIRE DAMPERS MUST ALSO BE IN PLACE.

NOTE: FOR AIR DISTRIBUTION AND EQUIPMENT LOCATIONS, SEE ENLARGED TYPICAL MODULE FLOOR PLAN, SHT. M-3.

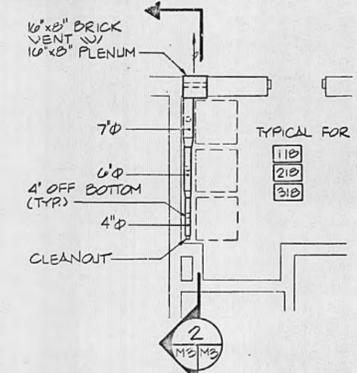


	WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.
	EFD DWG NO 295955 JOB ORDER NO 5F7126 STA PROJ NO DES PJD PROJ MGR RWB EFD RVD BR MGR APPROVED DATE ACTIVITY-SATISFACTORY TO APPROVED DATE FOR EFD FOR COMMANDER NAVFAC	NAVAL STATION ROTHS PERSONNEL SUPPORT FACILITIES NSNA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ, & EDF ADDITION BEQ MECH SECOND FLR PLAN & BOILER ROOM PLAN SIZE CODE DONT NO F 8009I NAFAC DRAWING NO 4195955 CONSTA CONTR NO N62470-87-B-7126 SCALE NOTED SPEC 05-87-7126 SHEET 56 OF 76

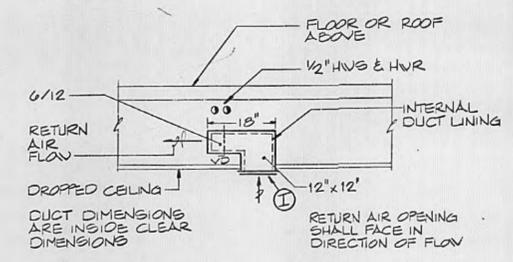
REVISIONS		
NO.	DESCRIPTION	DATE



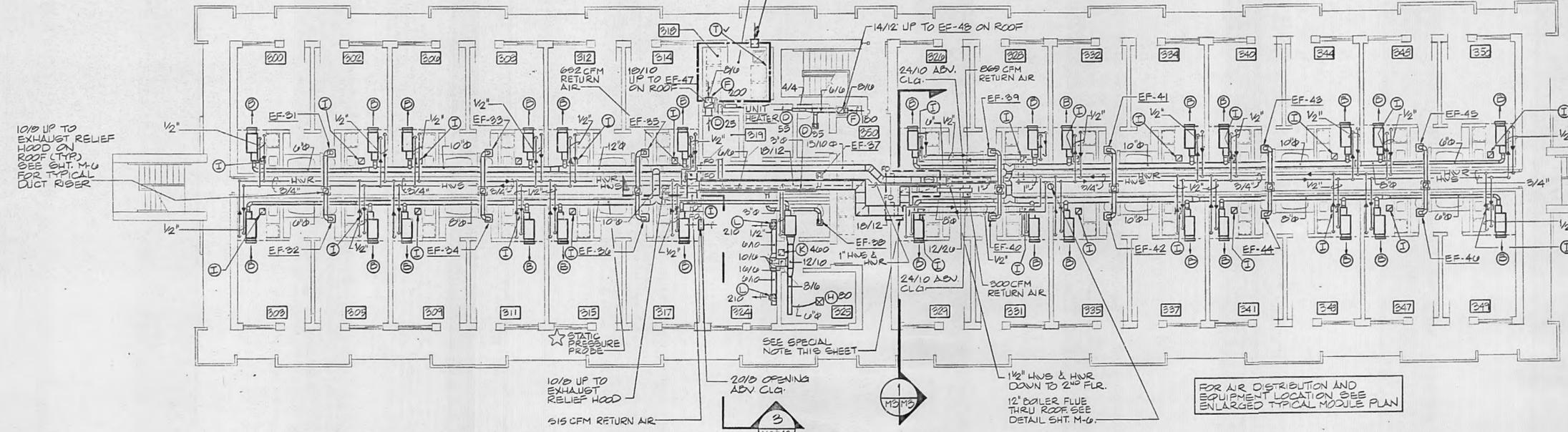
SECTION 2
SCALE: 1/2":1'-0"



PARTIAL LAUNDRY PLAN
SCALE: 1/4":1'-0"

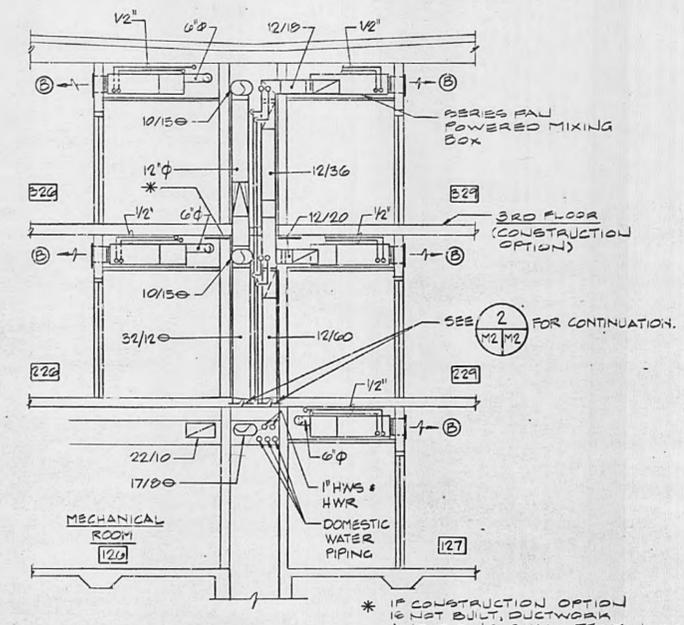


RETURN AIR DUCT DETAIL
SCALE: 1/2":1'-0"

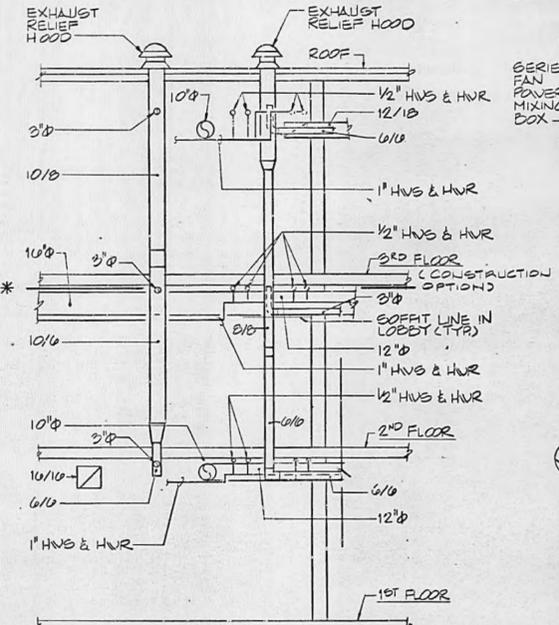


THIRD FLOOR MECHANICAL PLAN
SCALE: 1/8":1'-0"
(CONSTRUCTION OPTION)

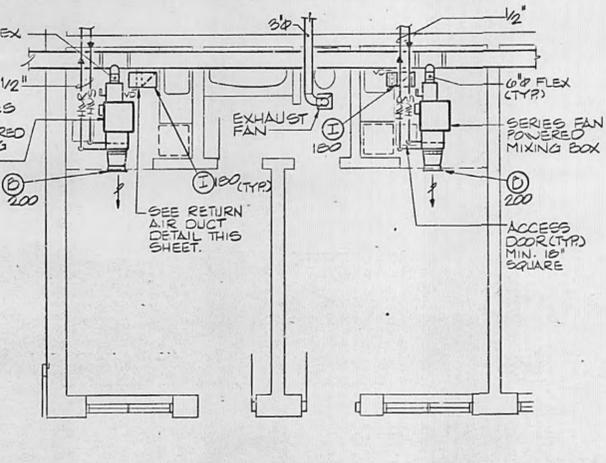
SPECIAL NOTE:
PIPING AND DUCTWORK IN THIS AREA MUST BE IN PLACE AND INSULATED PRIOR TO THE ERECTION OF THE CONCRETE BLOCK. FIRE DAMPERS MUST ALSO BE IN PLACE.



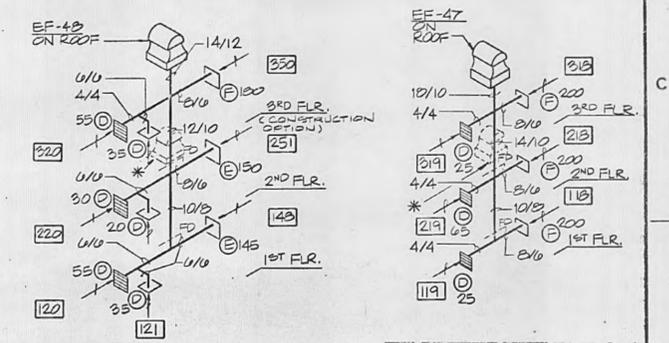
SECTION 1
SCALE: 1/4":1'-0"



SECTION 3
SCALE: 1/4":1'-0"

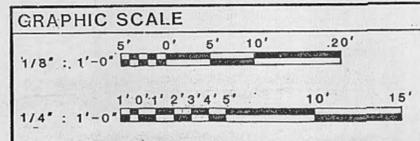


TYPICAL MODULE FLOOR PLAN - BEQ
SCALE: 1/4":1'-0"

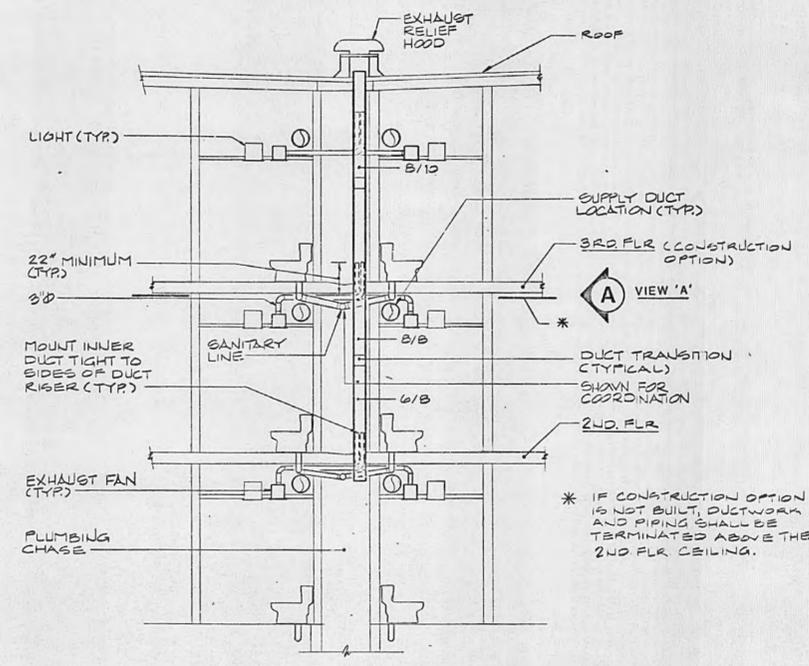


EXHAUST FAN RISER (BEQ)
NO SCALE

* IF CONSTRUCTION OPTION IS NOT BUILT, LOCATE FAN AT 2ND FLOOR AND DELETE FIRE DAMPER



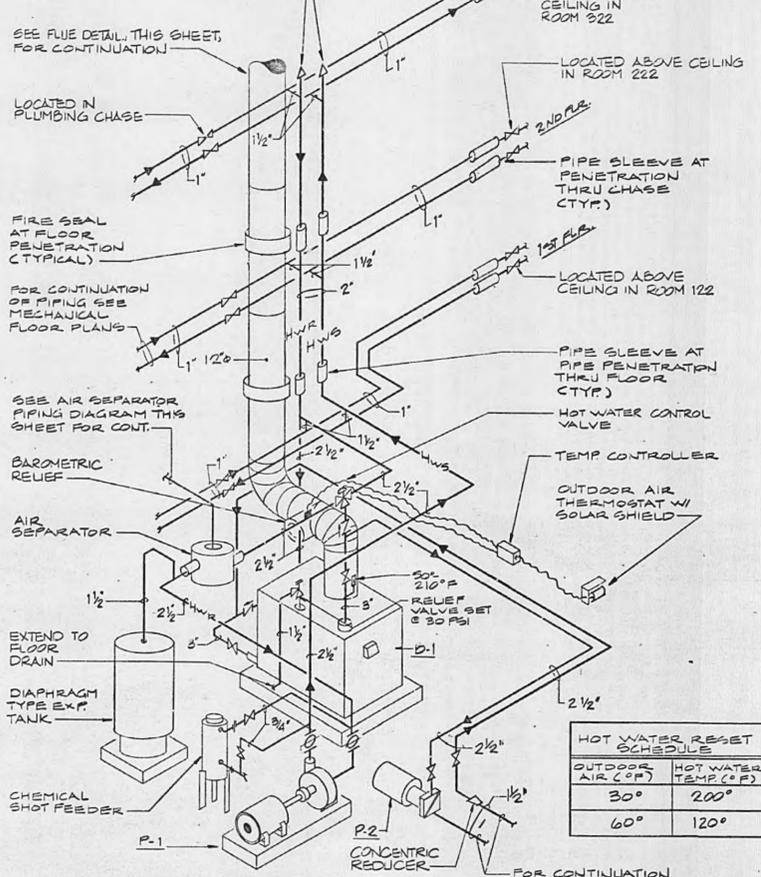
	WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VA.
	EFD DWS NO 295956 JOB ORDER NO 5F7126 STA PROJ NO DES. P.J.D. DRWN W.S.H. PROJ. MGR. R.W.B. CHAIRMAN EFD RVD DES. DIR.	ROTH PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION BEQ MECHANICAL THIRD FLOOR PLAN



EXHAUST DUCT RISER (BEQ)

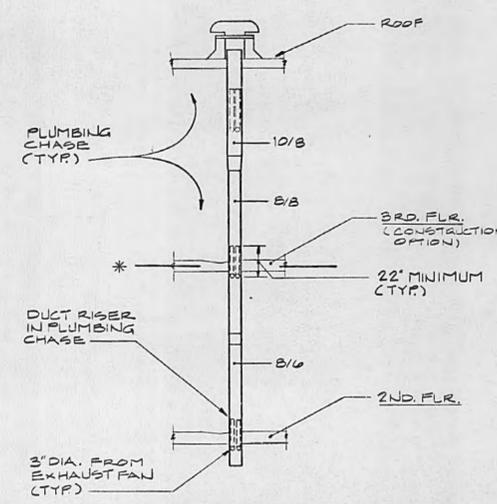
SCALE: 1/4" = 1'-0"

CONSTRUCTION OPTION NOTES:
 IF OPTION IS NOT BUILT, LOCATE AUTOMATIC AIR VENTS AT 2ND FLOOR CEILING AND LOCATE FLUE ON 2ND FLOOR ROOF.

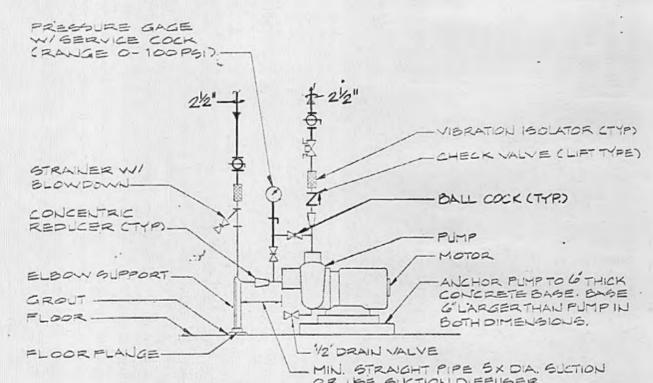


MECHANICAL ROOM PIPING ISOMETRIC (BEQ)

NO SCALE

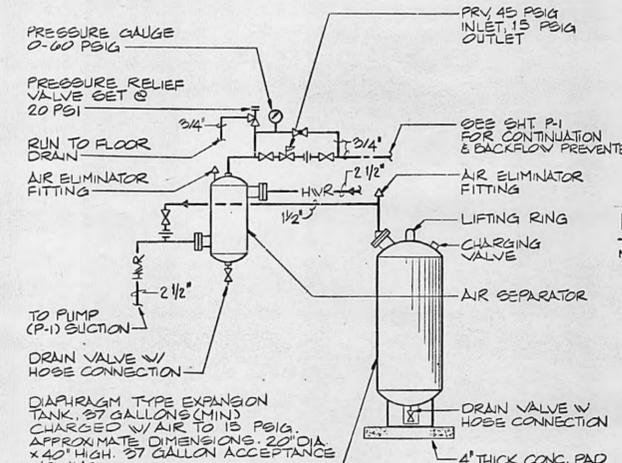


VIEW 'A'



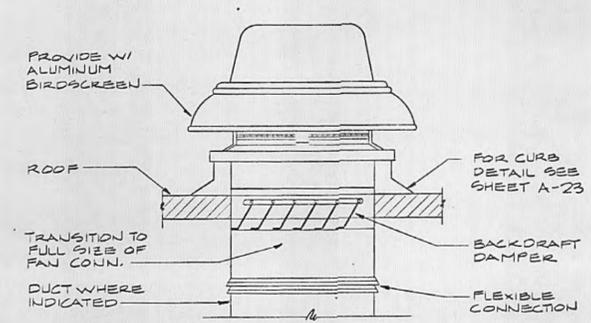
BASE MOUNTED CENTRIFUGAL PUMP DETAIL (BEQ)

NO SCALE



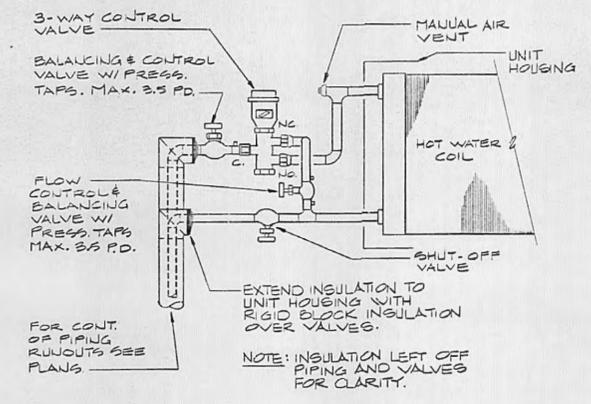
AIR SEPARATOR/EXPANSION TANK DETAIL (BEQ)

NO SCALE



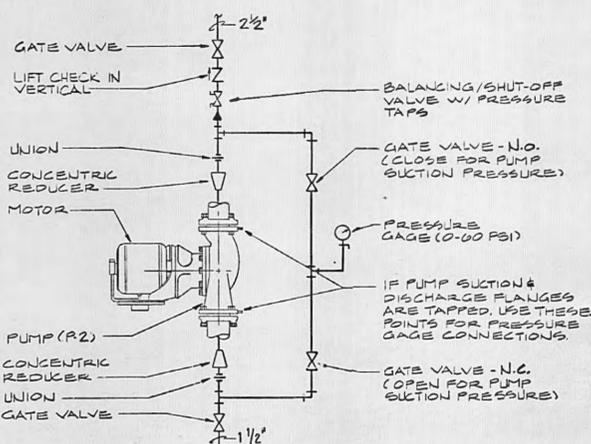
ROOF MOUNTED EXHAUST FAN

NO SCALE



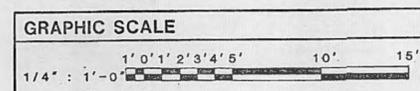
FAN POWERED BOX PIPING DETAIL (BEQ)

NO SCALE



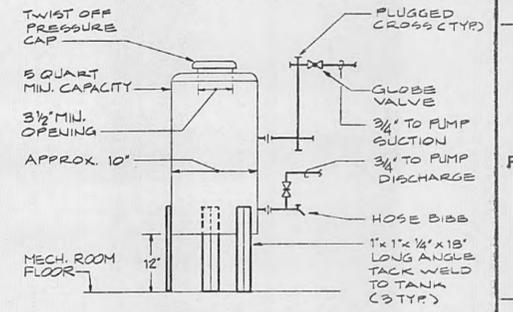
INLINE CENTRIFUGAL PUMP

NO SCALE



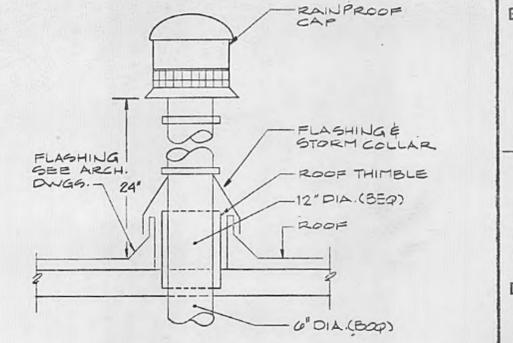
GRAPHIC SCALE

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED



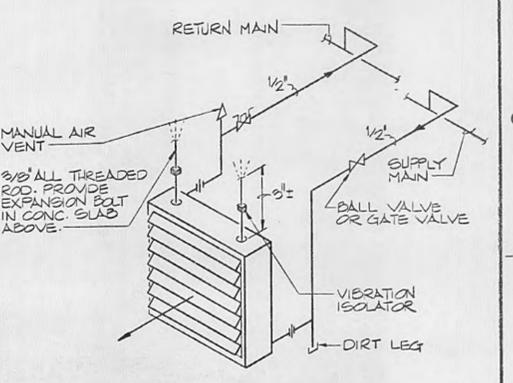
CHEMICAL SHOT FEEDER DETAIL (BEQ)

NO SCALE



FLUE DETAIL (BEQ)(BOQ)

NO SCALE



HOT WATER UNIT HEATER PIPING DETAIL (BEQ)

NO SCALE

	M-6 DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.
	ROTHR PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION SECTIONS, DIAGRAMS AND DETAILS
EFD DWS NO 295959 JOB ORDER NO 5F7126 STA PROJ NO DES PJD DRWN WSH PROJ MGR CH ARCH/ENR EFD RVD DES DIM BR MGR DES DIM APPROVED DATE ACTIVITY SATISFACTORY TO APPROVED DATE FOR EFD FOR COMMANDER NAVFAC	NAVAL STATION 8009I NAVFAC DRAWING NO 4195959 COGTR CONTR NO N62470-87-B-7126 SCALE NOTED SPEC 05-87-7126 SHEET 60 OF 76

AIR HANDLING UNIT SCHEDULE

MARK	BUILDING SERVED	CFM	TOTAL S.P.	FAN RPM	MOTOR DATA				AIR SIDE			TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	SUPPLY FAN WHEEL TYPE	VAR. DRIVE	REMARKS			
					HP	V	PH	FLA	HZ	EAT-°F	LAT-°F						ΔP IN. H ₂ O		
AHU-1	BEQ	0,810	2.53	875	7 1/2	208	30	24	60	81	67.6	56.1	55.5	0.60	323.5	230.4	FORWARD CURVED	YES	1760 CFM OUTDOOR AIR (2)
RTU-1	EDF	2,000	0.895	910	1 1/2	208	30	41.9	60	86.4	71	58.1	54.5	-	91.4	59.9		NO	650 CFM OUTDOOR AIR, 540,000 BTUH HEATING BY DUCT MOUNTED STEAM COIL (3) (1)
AHU-1 OPTION	* BEQ	5,200	2.53	800	5	208	30	16.8	60	81.2	67.3	56.1	55.5	0.23	185.7	141.6		YES	1180 CFM OUTDOOR AIR

① 20' W x 22' H, 55°F ENT. AIR, 99.47° LVG. AIR, 10 PSI ENT. STEAM, 4.65 SQ. FT. FACE AREA, 0.14" AIR PRESSURE DROP.
 AHU-1, NEMA STARTER SIZE 1.
 RTU-1, NEMA STARTER SIZE 00.

- ② EXT. SP. = 2.11"
- ③ EXT. SP. = 0.89"

* IF CONSTRUCTION OPTION IS NOT BUILT USE SAME AHU-1 SIZE EXCEPT USE AHU-1 OPTION COIL SIZE AND MOTOR.

GRILLE, REGISTER & DIFFUSER SCHEDULE

MARK	SERVICE	SIZE	MATERIAL	S.P.	VOLUME DAMPER	REMARKS
(A)	SUPPLY DIFFUSER	9x9	ALUM.	.096	YES	4-WAY BLOW
(B)	SUPPLY REGISTER	12x8		.020		45° DEFLECTION ADJUSTABLE BAR
(C)		12x12		.096		4-WAY BLOW
(D)	RETURN GRILLE	4x4		.09	NO	
(E)		6x6		.09		
(F)		8x6		.09		
(G)		10x8		.09		
(H)	SUPPLY DIFFUSER	6x6		.096	YES	4 WAY BLOW
(I)	RETURN GRILLE	12x12		.02	YES	FILTER GRILLE
(J)		24x12		.09		
(K)	RETURN GRILLE	12/10		.09	YES	FILTER GRILLE
(L)	SUPPLY REGISTER	12/10		.042	YES	45° DEFLECTION ADJUSTABLE BAR

PUMP SCHEDULE

MARK	SERVICE TYPE	BLDG. SERVED	WATER FLOW (GPM)	TOTAL HEAD (FT. WG.)	RPM/ NEMA STR.	MAX. MOTOR HP	ELECTRICAL DATA V	Φ	HZ	PUMP TYPE	REMARKS
P-1	HEATING HOT WATER	BEQ	46.8	47.1	1750/00	1/2	208	3	60	DASE MTD.	00 NEMA STARTER SIZE
P-2		BEQ	60	25	1750/00	3/4	208	3	60	IN-LINE	
P-1 OPTION		* BEQ	31.2	47.1	1750/00	1/2	208	3	60	DASE MTD.	

* IF CONSTRUCTION OPTION IS NOT BUILT USE PUMP P-1 OPTION INSTEAD OF P-1.

EXHAUST FAN SCHEDULE

MARK	APPLICATION	BLDG. SERVED	CFM	S.P.	FAN DATA			MOTOR DATA			V	Φ	REMARKS	FAN TYPE	
					APPROX. RPM	E.P.M. SPEED	MAX. WATS	HP	WATS						
EF-1 TO EF-40	TOILET EXHAUST	BEQ	50	0.125	2200	-	2.0	-	90	120	1			CONNECT TO LIGHT SWITCH	CEILING
* EF-47	LAUNDRY & STORAGE	BEQ	715	0.27	1547	4500	9.5	1/4	-	-				THERMOSTAT CONTROL SET @ 80°F	CENTRIFUGAL ROOF
* EF-48	ELEC. JANITORS CLOSET AND CORR. EXHAUST	BEQ	705	0.13	1373	4000	8.1	1/4	-	-				CONTINUOUS OPERATION	
EF-49	LAUNDRY EXHAUST	DOQ	200	0.125	1150	-	2.0	-	115	-				PROVIDE WITH ROOF CAP	CEILING
EF-50 TO EF-61	TOILET EXHAUST	DOQ	50	-	1600	-	1.5	-	96	-				PROVIDE ROOF CAP, CONNECT TO LIGHT SWITCH.	
EF-62	MEN TOILET EXHAUST	EDF	225	0.25	1550	-	3.3	1/8	-	-				CONNECT TO LIGHT SWITCH	
EF-63	WOMEN TOILET EXHAUST	EDF	225	0.25	1550	-	3.3	1/8	-	-					
EF-64	BOILER EXHAUST	EDF	100	0.25	1550	-	3.1	1/8	-	-					CENTRIFUGAL ROOF
EF-65	DISHWASHER EXHAUST	EDF	700	0.45	1550	-	8.1	1/8	-	-				PROVIDE RELAYS FOR CONNECTION TO GWT FURNISHED DISHWASHER	
EF-66	STORAGE EXHAUST	DOQ	35	-	1600	-	1.5	-	96	-				PROVIDE W/ ROOF CAP, CONNECT TO LIGHT SWITCH	CEILING
EF-67	MECHANICAL ROOM	BEQ	540	0.25	1550	-	-	1/2	-	-				PROVIDE FAN W/ COMBINATION LOUVER/DAMPER/MOTORIZED & WALL TEST SET @ 50°F. MOTOR/FAN GUARD.	WALL PROPELLER

PROVIDE EF-1 - EF-67 W/ INTEGRAL DISCONNECT SWITCH.
 * EF-47 & 48 SHALL BE 505 CFM @ 1/8" H.P. AND 450 CFM @ 1/2" H.P. RESPECTIVELY IN THE EVENT THE CONSTRUCTION OPTION IS NOT BUILT.

CONTROL VALVE SCHEDULE

APPLICATION	BLDG. SERVED	GPM	CV	SIZE	REMARKS
HOT WATER COIL IN SERIES FAN POWERED MIXING BOX	BEQ	0.5	.63	1/2"	
BOILER MIXING VALVE	BEQ	46.5	28	2"	

HEAT PUMP SCHEDULE (BOQ)

MARK	COOLING CAP (BTUH)		HEATING CAP REVERSE CYCLE (BTUH)	HEAT KW	FAN DATA			ELECTRICAL DATA			REMARKS	
	TOTAL	SENSIBLE			CFM	HP	ESP	MIN. OA CFM	V	Φ		Hz
IHP-1	3360	3120	4236.5	1.9	137	1/2	-	20	208	1	14.4	
IHP-2	3360	3120	4236.5		137							
IHP-3	2640	2400	3320.9		106							
IHP-4	2640	2400	3320.9		106							
IHP-5	3120	2530	3030.2		158							
IHP-6	3840	3600	4927		125							
IHP-7	4,200	3,960	3279.2		158							
IHP-8	4,200	3,960	3279.2		158							
IHP-9	4560	4,320	4257.1		192							
IHP-10	3,480	3,240	3155.5		140							
RHP-1	13920	13080	16,739	3.75	575	1/2	802	60	208	1	13.0	①

- ① 2 POINT ELECTRICAL CONNECTION. 208V, 1 PHASE FOR A/C UNIT, 208V, 1 PHASE FOR SUPPLEMENTAL ELECTRIC HEAT, PROVIDE W/ ROOF CURB.
- ② PROVIDE UNITS WITH OUTDOOR STANDARD GRILLE.

SERIES FAN POWERED BOX SCHEDULE (BEQ)

ROOM #	MAXIMUM PRIMARY AIR (CFM)	HTG. (MBH)	ROOM #	MAXIMUM PRIMARY AIR (CFM)	HTG. (MBH)	ROOM #	MAXIMUM PRIMARY AIR (CFM)	HTG. (MBH)
100	147	4189	200	147	3209	300A	160	4137
102	150	2357	202	150	2012	302A	155	2377
103	95	4189	203	95	3209	303A	124	4137
105	84	2357	205	84	2012	305A	110	2377
106	150	2357	206	150	2012	306A	155	2377
103	150	2357	209	84	2012	308A	155	2377
109	84	2357	205	150	2012	309A	110	2377
111	84	2357	211	84	2012	311A	110	2377
112	150	2357	212	150	2012	312A	155	2377
114	150	2357	214	150	2012	314A	155	2377
115	84	2357	215	84	2012	315A	110	2377
117	84	2357	217	84	2012	317A	110	2377
* 24 & 25	425	12319	223	84	2012	* 324	425	703
			223	84	2012	323A	155	2377
127	84	2357	226	150	2012	326A	155	2377
129	84	2357	223	150	2012	329A	110	2377
130	150	2357	229	84	2012	331A	110	2377
132	150	2357	231	84	2012	332A	155	2377
133	84	2357	232	150	2012	334A	155	2377
135	84	2357	234	150	2012	335A	110	2377
136	150	2357	235	84	2012	337A	110	2377
138	150	2357	237	84	2012	338A	155	2377
139	84	2357	235	150	2012	340A	155	2377
141	84	2357	240	150	2012	341A	110	2377
142	150	2357	241	84	2012	343A	110	2377
144	151	4189	243	84	2012	344A	155	2377
145	84	2357	244	150	2012	346A	161	3996
147	115	4189	246	151	3209	347A	110	2377
			247	84	2012	349A	140	3996
			249	115	3209			

- NOTES: 1) MINIMUM AIR SETTING FOR EACH BOX SHALL BE 20 CFM.
 2) ALL BOXES BASED ON AIR VALVE SIZE OF 400 CFM & 0.1" AIR P.D.
 3) INLET S.P. TO BOXES BASED ON 0.22" WATER MIN.
 4) FAN SIZE 200 CFM @ 0.20" E.S.P., 120V, 10, 1.7 AMPS.
 5) HOT WATER COIL BASED ON 0.5 GPM, 0.3 FT. WATER P.D., 0.05" AIR P.D. AND SHALL PROVIDE 90°F MIN. L.A.T. 200PS FOUling FACTOR.
 * FAN SIZE 500 CFM @ 0.4" E.S.P., 120V, 10, 1.7 AMPS.
 * MINIMUM AIR SETTING SHALL BE 40 CFM.
 6) PROVIDE UNITS WITH INTEGRAL DISCONNECT SWITCHES.

- 7) UNITS INDICATED BY ▲, WILL BE USED ON THE SECOND FLOOR IN THE EVENT THE CONSTRUCTION OPTION IS NOT BUILT. UNITS WILL BE TRANSFERRED TO THE ROOMS WITH THE SAME SUFFIX, EG. 309 WILL REPLACE 209.
 8) THE EXCEPTIONS TO NOTE 7 ARE ROOMS 223 AND 225 WHICH WILL BE REPLACED WITH THE SAME SIZE INDICATED FOR ROOM 217.

EQUIPMENT SCHEDULE (CONT.)

RANGE HOOD (BOQ)

CAPACITY	- 100 - 200 CFM @ 0.25" S.P., 6.5 SONES.
ELECTRICAL	120V, 1-PHASE, 500 WATTS
REMARKS	PROVIDE UNIT WITH SOLID STATE CONTROLS, ON/OFF LIGHT SWITCH, HIGH/MED/LOW/OFF FAN SWITCH AND PREWIRED FOR EASY INSTALLATION. HOOD SHALL HAVE 10" X 4" EXHAUST DUCT HEATING, BACKDRAFT DAMPER AND WASHABLE ALUMINUM FILTER. PROVIDE HOOD WITH ROOF DISCHARGE CAP.

FREEZER CONDENSING UNIT (EDF)

CAPACITY	- 11,591 BTUH COOLING AT -10 DEGREES F SPACE TEMPERATURE AND 95 DEGREES F AMBIENT TEMPERATURE.
ELECTRICAL	208V, 3-PHASE, 2 HP, NEMA STARTER SIZE 00.
REMARKS	PROVIDE WITH MOUNTING SKIDS AND WEATHERPROOF COVER.

FREEZER EVAPORATOR (EDF)

CAPACITY	- 10,000 BTUH COOLING AT -10 DEGREES F SPACE TEMPERATURE.
ELECTRICAL	208V, 1-PHASE, 6.4 RLA.

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

EQUIPMENT SCHEDULE

AIR COOLED CONDENSING UNIT (TO MATCH WITH AHU-1) (BEQ)

CAPACITY - TOTAL COOLING - 323.5 MBH AT 95 DEGREES F AMBIENT AIR TEMP., ONE COMPRESSOR WITH 3 STAGES OF COOLING.
 ELECTRICAL - 208V, 3 PHASE, 60 HZ, 170 MCA, 120 COMP. RLA, 3 FANS, 1 @ 6.2 FLA AND 2 @ 6.6 FLA.
 PROVIDE UNIT WITH MOUNTING LEGS, ELECTRIC UNLOADERS, EVAPORATOR DEFROST THERMOSTAT PACKAGE, COIL GRILLE AND WINTER START PACKAGE.

OIL FIRED BOILER (B-1) (BEQ)

CAPACITY - 810 MBH TOTAL MINIMUM HEATING OUTPUT 29 BOILER H.P., 30 PSI WORKING PRESSURE, #2 OIL FIRED WITH DIRECT SPARK, 200 DEGREES F LVG. WATER.
 ELECTRICAL - 120V, 1 PHASE, 1/2 H.P.

AIR COOLED CONDENSING UNIT (BEQ) (TO MATCH WITH AHU-1 OPTION) (ACCU-1)

CAPACITY - 185.7 MBH TOTAL COOLING AT 95 DEGREES F. AMBIENT AIR, ONE COMPRESSOR WITH 3 STAGES OF COOLING.
 ELECTRICAL - 208V, 3-PHASE, 60HZ, 103 MCA, 76 RLA - COMP., 3 FANS, 1 @ 4.5 FLA & 2 @ 4.6 FLA.
 PROVIDE UNIT WITH MOUNTING LEGS, ELECTRIC UNLOADERS, EVAPORATOR DEFROST, THERMOSTAT PACKAGE, COIL GRILLE AND WINTER START PACKAGE.

HOT WATER UNIT HEATER (BEQ)

CAPACITY - 3,223 BTUH TOTAL CAPACITY, 200 DEGREES F ENT. WATER TEMPERATURE, 60 DEGREES F ENT. AIR TEMP., 1.1 GPM AT 0.4" P.D., 220 CFM, 1550 RPM
 ELECTRICAL - 120V, 1 PHASE, 16 MHP
 PROVIDE UNIT WITH MOUNTING BRACKETS AND UNIT MOUNTED THERMOSTAT.

EXHAUST RELIEF HOOD (BEQ)

CAPACITY - 300 CFM AT 526 FPM AND 0.07" S.P. AND 0.57 SQ.FT. FREE THROAT AREA 10-1/4" SQUARE ROOF OPENING. PROVIDE UNIT WITH ROOF CURB.

AIR SEPARATOR (BEQ)

CAPACITY - 46.7 GPM, 2" INLET AND OUTLET PIPE CONNECTION, 1.0 FT. P.D. WITH STRAINER
 PROVIDE UNIT WITH TOP CONNECTION FOR WATER MAKE-UP AND AIR VENT. PROVIDE BOTTOM CONNECTION FOR BLOW DOWN CLEANING.

BASEBOARD RADIATION (BB-1) (EDF)

CAPACITY - 2,433 BTUH AT 65 DEGREES F ENT. AIR, AND 12 PSI ENT. STEAM, 3/4" TUBE WITH 32 FINS/FT. @ 3 FT. ELEMENT LENGTH.
 PROVIDE LOW PROFILE TYPE WITH SLOPING TOP, TOP DISCHARGE AND BOTTOM RETURN. PROVIDE ENCLOSURE TO HOUSE ELEMENT, THERMOSTATIC OPERATOR, SENSOR AND STEAM CONTROL VALVE.

BASEBOARD RADIATION (BB-2) (EDF)

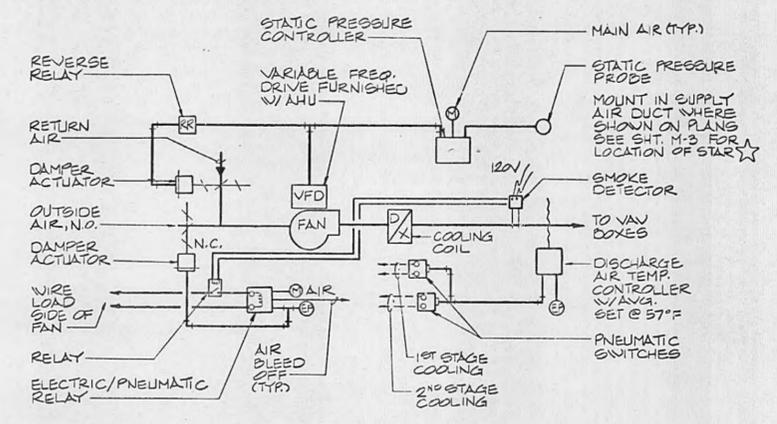
CAPACITY - 1,576 BTUH AT 65 DEGREES F ENT. AIR, AND 12 PSI ENT. STEAM, 3/4" TUBE WITH 32 FINS/FT. @ 2 FT. ELEMENT LENGTH.
 PROVIDE LOW PROFILE TYPE WITH SLOPING TOP, TOP DISCHARGE AND BOTTOM RETURN. PROVIDE ENCLOSURE TO HOUSE ELEMENT, THERMOSTATIC OPERATOR, SENSOR AND STEAM CONTROL VALVE.

COMBUSTION AIR HOOD (BOQ)

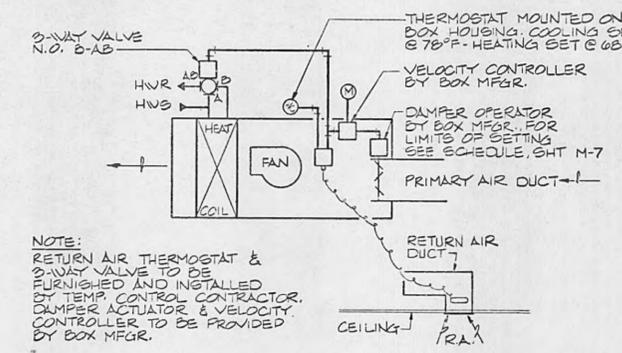
CAPACITY - 1.56 SQ. FT. FREE AREA AT 0.05" S.P., 15" SQUARE ROOF OPENING. PROVIDE UNIT WITH ROOF CURB.

M-7	
DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND	
ATLANTIC DIVISION - NORFOLK, VA.	
EVO DWS NO 285860 JOB ORDER NO 567126 STA PROJ NO DES PJD PROJ MOR RWB CHARCHENOR EVO RVD AIR WSR APPROVED DATE ACTIVITY SATISFACTORY TO DATE	NAVAL STATION BOTHR PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION EQUIPMENT SCHEDULES SIZE CODE DENT NO 4195960 CONSTR CONTR NO N62470-87-B-7126
APPROVED DATE FOR EDP FOR COMMANDER NAVALFAC	SCALE NONE SPEC 05-87-7126 SHEET 61 OF 76

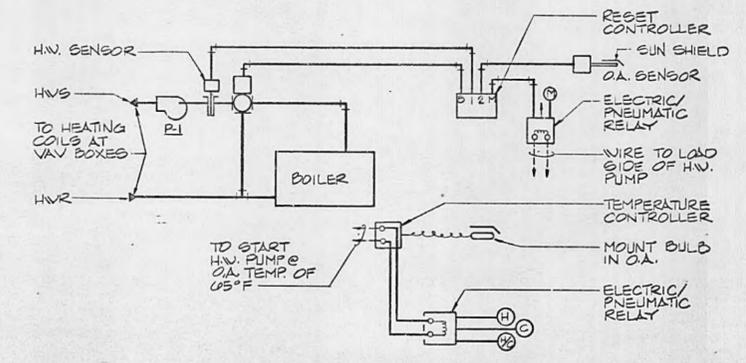
REVISIONS		
REV.	DESCRIPTION	DATE



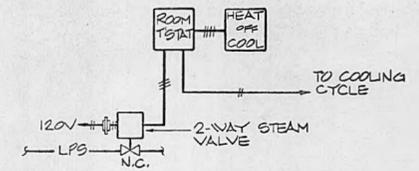
AHU-1



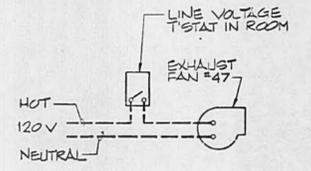
SERIES FAN POWERED BOX



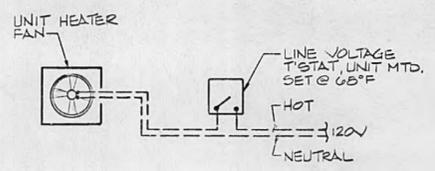
MECHANICAL ROOM (BEQ)



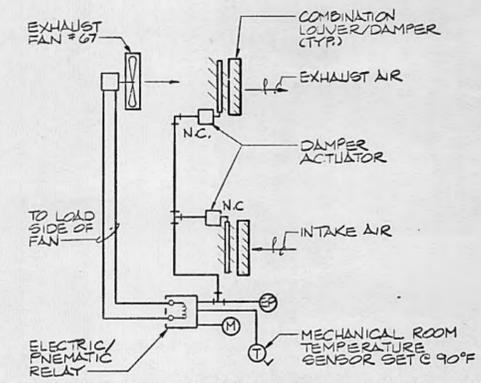
RTU-1 (EDF)



EXHAUST FAN #47 (BEQ)



UNIT HEATER (BEQ)



EXHAUST FAN #67 (BEQ)

SEQUENCE OF OPERATION

AHU-1 (BEQ)

UNIT FAN SHALL BE STARTED FROM HAND-OFF-AUTO IN STARTER COVER. WHEN FAN STARTS, THE OUTSIDE AIR DAMPER SHALL OPEN TO PROVIDE THE PRESENT MINIMUM O.A. VENTILATION AND THE DISCHARGE AIR TEMPERATURE CONTROLLER WILL BE PLACED IN OPERATION. A STATIC PRESSURE CONTROLLER WITH ITS SENSING PROBE MOUNTED IN THE SUPPLY AIR DUCTWORK, SHALL VARY THE SPEED OF THE FAN THRU THE VARIABLE FREQUENCY DRIVE AS REQUIRED TO MAINTAIN THE STATIC PRESSURE SET POINT. THE RETURN AIR DAMPER SHALL BE CONTROLLED AS THE FAN SPEED INCREASES OR DECREASES. WHEN THE FAN SPEED REACHES ITS MINIMUM, THE RETURN AIR DAMPER WILL BE FULLY CLOSED. THE DISCHARGE AIR TEMPERATURE CONTROLLER SHALL CYCLE THE TWO STAGES OF COOLING AS REQUIRED TO MAINTAIN A CONSTANT DISCHARGE AIR TEMPERATURE OF 57 DEGREES F. A SMOKE DETECTOR SHALL BE LOCATED IN THE SUPPLY AIR DUCT, DOWN STREAM OF THE FILTERS AND FAN. UPON DETECTION OF PRODUCTS OF COMBUSTION, THE DETECTOR SHALL SHUT DOWN THE UNIT FAN MOTOR.

SERIES FAN POWERED BOX (BEQ)

UNIT FAN SHALL RUN CONTINUOUSLY. ON A RISE IN RETURN AIR TEMPERATURE, THE UNIT MOUNTED THERMOSTAT WITH SENSING ELEMENT IN THE RETURN GRILLE DUCT BOOT, SHALL MODULATE THE 3-WAY VALVE ON THE HEATING COIL TOWARD CLOSED POSITION. ON A CONTINUED RISE IN RETURN AIR TEMPERATURE, THE THERMOSTAT SHALL MODULATE (THRU THE UNIT VELOCITY CONTROLLER) THE BOX PRIMARY AIR DAMPER TOWARD ITS OPEN POSITION TO PROVIDE COOLING TO THE SPACE AS REQUIRED. ON A FALL IN RETURN AIR TEMPERATURE, THE REVERSE OPERATION SHALL OCCUR. THE RETURN AIR THERMOSTAT SET POINT SHALL BE INDEXED FOR 68 DEGREES F. DURING HEATING SEASON AND FOR 78 DEGREES F. DURING THE COOLING SEASON. INDEXING OF THE THERMOSTAT SHALL BE FROM THE CENTRAL DUAL PRESS. MAIN AIR.

MECHANICAL EQUIPMENT ROOM (BEQ)

WHEN OUTSIDE AIR TEMPERATURE DROPS TO 65 DEGREES F., THE HEATING HOT WATER PUMP (P-1) SHALL START. WHEN THE PUMP STARTS, THE OUTDOOR RESET CONTROLLER SHALL BE PLACED IN OPERATION. THE RESET CONTROLLER WITH ITS PRIMARY SENSING ELEMENT LOCATED IN THE HOT WATER SUPPLY PIPE WELL, SHALL MODULATE THE 3-WAY MIXING VALVE AS REQUIRED TO MAINTAIN ITS SETTING. THE CONTROLLER SET POINT SHALL BE RESET FROM THE OUTSIDE AIR IN ACCORDANCE WITH THE RESET SCHEDULE AS SHOWN ON SHEET M-6.

EXHAUST FAN #47 (BEQ)

ON A RISE IN SPACE TEMPERATURE ABOVE THERMOSTAT SET POINT OF 90 DEGREES F., THE EXHAUST FAN SHALL BE ENERGIZED AND THE LOUVER DAMPERS SHALL BE OPENED TO MAINTAIN SET POINT. ON A FALL IN SPACE TEMPERATURE, THE REVERSE SHALL OCCUR.

RTU-1 (EDF)

WITH "HEAT-OFF-COOL" SWITCH IN THE "HEAT" POSITION, AND A DROP IN SPACE TEMPERATURE BELOW THERMOSTAT SET POINT, THERMOSTAT SHALL MODULATE STEAM HEATING VALVE OPEN AS REQUIRED TO MAINTAIN SET POINT. ON A RISE IN SPACE TEMPERATURE ABOVE THERMOSTAT SET POINT, THE REVERSE SEQUENCE SHALL OCCUR. WITH THE "HEAT-OFF-COOL" SWITCH IN THE "COOL" POSITION, THE STEAM VALVE TO THE HEATING COIL WILL BE DE-ENERGIZED AND CLOSED TO THE COIL. ON A RISE IN SPACE TEMPERATURE ABOVE THERMOSTAT SET POINT, THERMOSTAT WILL CYCLE THE UNIT COOLING AS REQUIRED TO MAINTAIN SET POINT. ON A DROP IN SPACE TEMPERATURE, BELOW THERMOSTAT SET POINT, THE REVERSE SEQUENCE SHALL OCCUR.

UNIT HEATER (BEQ)

ON A DROP IN SPACE TEMPERATURE, BELOW THERMOSTAT SET POINT, THE THERMOSTAT SHALL CYCLE THE FAN AS REQUIRED TO MAINTAIN THE THERMOSTAT SET POINT.

RTU-1 (BOQ)

PROVIDE A THERMOSTAT WITH SUBBASE CONTAINING SYSTEM "HEATING-COOLING" AND FAN "OFF-ON-AUTO" SELECTION SWITCHES. HEATING OPERATION IS SUCH THAT ON A DROP IN SPACE TEMPERATURE, THE UNIT WILL CYCLE AS REQUIRED TO MAINTAIN THE THERMOSTAT SET POINT. ON A CONTINUED DROP IN SPACE TEMPERATURE, THE ELECTRICAL AUXILIARY HEATING ELEMENT SHALL BE ENERGIZED TO MAINTAIN THE THERMOSTAT SET POINT. THE AUXILIARY ELECTRIC HEAT SHALL BE CONTROLLED BY AN OUTDOOR THERMOSTAT SET AT 35 DEGREES F. TO ALLOW OPERATION OF ELECTRIC AUXILIARY HEAT. WHEN THE SPACE TEMPERATURE RISES, THE REVERSE SHALL OCCUR. COOLING OPERATION IS SUCH THAT ON A RISE IN SPACE TEMPERATURE THE UNIT WILL CYCLE AS REQUIRED TO MAINTAIN THE THERMOSTAT SET POINT. ON A DROP IN SPACE TEMPERATURE, THE REVERSE SHALL OCCUR. ON AN ACTIVATION OF THE DEFROST CYCLE, A MODIFIED COOLING MODE SHALL BE ENERGIZED; THE REVERSING VALVE POSITIONED FOR COOLING AND THE OUTDOOR FAN DE-ENERGIZED. THE SUPPLEMENTAL ELECTRIC HEAT SHALL BE ENERGIZED TO PREVENT COLD AIR RECIRCULATION.

IHP1-10 (BOQ)

THE UNIT SHALL BE MANUALLY STARTED AND SHALL OPERATE ACCORDING TO THE SELECTED MODE TO MAINTAIN SPACE TEMPERATURE.

OIL FIRED BOILER (BOQ)

THE BOILER SHALL BE MANUALLY STARTED FOR CONTINUOUS OPERATION. BOILER SHALL MAINTAIN 200 DEGREES F WATER TEMPERATURE.

	M-8	
	DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.	
EFD DWG. NO. 295961 JOB ORDER NO. 5F7126 STA. PROJ. NO. DES. PJD PROJ. MGR. RWB EFD RVD. [Signature] DR. MGR. [Signature] APPROVED [Signature] ACTIVITY SATISFACTORY TO [Signature] FOR EFD FOR COMMANDER NAVFAC	NAVAL STATION ROTH PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION SEQUENCE OF CONTROLS AND DIAGRAMS	NAVFAC DRAWING NO. 4195961 CONSTR. CONTR. NO. NS2470-87-B-7126 SCALE NOTED SPEC. 05-87-7126 SHEET 62 OF 76

LIGHTING FIXTURE SCHEDULE - INTERIOR

TYPE	DESCRIPTION OR DETAIL	LAMPS	VOLTS	MOUNTING/REMARKS
△	NL-2 TYPE-B	2-F35 T12 CW RS	120	SURFACE, CEILING
△	NL-4 TYPE-B	2-F35 T12 CW RS	120	SURFACE, WALL, AT CEILING, DOWNLIGHT ONLY
△	NL-56 TYPE-B2	2-13W PL	120	RECESSED, CEILING, WHITE TRIM FLANGE, OPAL LENS, HIGH POWER FACTOR BALLAST
△	NL-7 TYPE-B	2-F35 T12 CW RS	120	SURFACE, CEILING, NO REFLECTOR
△	NL-4 TYPE-A	2-F20 T12 CW RS	120	SURFACE, WALL, AT CEILING, DOWNLIGHT ONLY
△	NL-12 TYPE-C	2-F35 T12 CW RS	120	SURFACE, CEILING
△	NL-12 TYPE-E	4-F35 T12 CW RS	120	SURFACE, CEILING
△	NL-12 TYPE-B	2-F35 T12 CW RS	120	SURFACE, CEILING
△	KEYLESS PORCELAIN LAMPHOLDER	1-60W A19	120	SURFACE, CEILING
△	NL-47 TYPE-B	2-7W PL	120	SURFACE, WALL BOTTOM AT 7'-0" A.F.F.
△	NL-13 TYPE-D	2-13W PL	120	SURFACE, CEILING
△	NL-3 TYPE-E	4-F35 T12 CW RS	120	RECESSED, CEILING
△	NL-8 TYPE-B	2-F35 T12 CW RS	120	SURFACE, CEILING, DAMP LABEL
△	NL-46 TYPE E	2-7W PL	120	SURFACE, CEILING DAMP LABEL
△	NL-3 TYPE-C	2-F35 T12 CW RS	120	RECESSED, CEILING
△	NL-17 TYPE B	2-13W PL	120	RECESSED, CEILING
△	NL-17 TYPE C	2-7W PL	120	RECESSED, CEILING, DAMP LABEL
△	NL-48 TYPE-C	2-7W PL	120	SURFACE, CEILING, WET LABEL
△	NL-48 TYPE-D	2-7W PL	120	SURFACE, CEILING
△	NL-51	12-8W HALOGEN	120	SURFACE, WALL 17'-0" A.F.F.; U.O.N.

LIGHTING FIXTURE SCHEDULE - EXTERIOR

TYPE	DESCRIPTION OR DETAIL	LAMPS	VOLTS	MOUNTING/REMARKS
△	XL-1 (BASE BID ONLY)	1-250 HPS	208	IES TYPE IV DISTRIBUTION XL-32 "A" SINGLE MOUNTING ARM XL-23 "E" CONCRETE POLE
△	XL-1	1-150 HPS	208	IFOWARD THROU DISTRIBUTION XL-32 "A" SINGLE MOUNTING ARM XL-23 "B" CONCRETE POLE TILT FIXTURE 10° ABOVE HORIZONTAL
△	XL-2 (CONSTRUCTION OPTION ONLY)	1-250 HPS	208	WALL MOUNTED, 32'-0" ABOVE GRADE ION XL-30 "E" RIGHT ANGLE BRACKET WITH XL-30 "F" SLIP FITTING TILT FIXTURE 48° ABOVE HORIZONTAL

LEGEND - INTERIOR

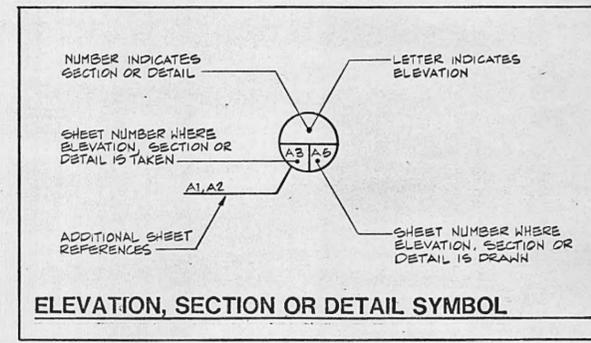
- FLUORESCENT LIGHTING FIXTURE
- INCANDESCENT OR H. I. D. LIGHTING FIXTURE
- ⊙ EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED
- ⊕ EMERGENCY OR BATTERY POWERED LIGHTING UNIT - CONNECT AHEAD OF LOCAL SWITCH
- △ LIGHTING FIXTURE TYPE SYMBOL (SEE LIGHTING FIXTURE SCHEDULE)
- ⊙ SINGLE POLE SWITCH, 20A, 120/277V, 46" AFF
- ⊙ THREE-WAY SWITCH, 20A, 120/277V, 46" AFF
- ⊙ MOTOR RATED SWITCH
- ⊙ PHOTOELECTRIC CONTROL, 1000W, 120V, SPST, ORIENT NORTHWARD
- ⊙ DUPLEX RECEPTACLE, 15A, 125VAC, 18" AFF, U.O.N.
- ⊙ DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING TYPE, 15A, 125VAC, 46" AFF, U.O.N.
- ⊙ DUPLEX GFI RECEPTACLE, 15A, 125VAC WITH WEATHERPROOF COVER, 18" ABOVE GRADE/FINISH FLOOR
- ⊙ SPECIAL PURPOSE RECEPTACLE, 30A, 3 POLE, 4 WIRE, 250VAC, 18" AFF, UON
- ⊙ SPECIAL PURPOSE RECEPTACLE, 15A, 2 POLE, 3 WIRE, 250VAC, 6" AFF, UON
- ⊙ JUNCTION BOX
- ⊙ MOTOR CONNECTION, HP INDICATED
- NUMBER OF POLES
- SWITCH RATING
- DISCONNECT SWITCH, 250V
- NEMA ENCLOSURE TYPE IF OTHER THAN NEMA 1
- FUSE RATING (NF INDICATES NON-FUSIBLE)
- ⊙ MAGNETIC MOTOR CONTROLLER
- ▨ PANELBOARD, 120/208V
- ▨ PANELBOARD, 277/480V
- ▭ MAIN DISTRIBUTION PANELBOARD
- ⊕ UNIT HEATER CONNECTION
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN
- BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT. NO TICKMARKS INDICATE 2# 12 CONDUCTORS & 1#12 GROUND IN 1/2" CONDUIT U.O.N. TICKMARKS, WHEN SHOWN, INDICATE NUMBER OF #12 CONDUCTORS IF OTHER THAN THREE; (7) INDICATES GROUND. CONDUIT LARGER THAN 1/2" AND WIRE LARGER THAN #12 SHALL BE AS INDICATED.
- HOMERUNS TO PANEL. PANEL AND CIRCUIT DESIGNATIONS AS INDICATED.
- INDICATES A CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR OR ABOVE SUSPENDED CEILING.
- INDICATES EXPOSED CONDUIT RUN
- ⊕ FIRE ALARM MANUAL PULL STATION, MOUNT 48" AFF
- ⊕ FIRE ALARM HORN, MOUNT 84" AFF
- ⊕ FIRE ALARM CONTROL PANEL (FACP), MOUNT TOP 6'-0" AFF
- ⊕ 120VAC SINGLE-STATION SMOKE DETECTOR, HARD WIRED INTO THE ELECTRICAL SOURCE AS INDICATED - WALL MOUNTED
- ⊕ DUCT SMOKE DETECTOR CONNECTION
- ⊕ FIRE ALARM SYSTEM HEAT DETECTOR
- ⊕ REMOTE FIRE ALARM SYSTEM TROUBLE BUZZER
- ▽ TELEPHONE OUTLET, MOUNT 18" A.F.F.
- ▽ PAY TELEPHONE OUTLET, MOUNT 54" A.F.F.
- TELEPHONE TERMINAL BACKBOARD
- ⊕ SPEAKER, CEILING MOUNTED
- ▽ SPEAKER/MICROPHONE OUTLET, WALL MOUNTED, 54" AFF
- ⊕ TELEVISION OUTLET, 18" AFF, UON
- ⊕ SPECIAL PURPOSE RECEPTACLE, 60A, 3 POLE, 4 WIRE, 250VAC, MOUNT 18" AFF

LEGEND - EXTERIOR

- UNDERGROUND DUCTBANK, CONCRETE ENCASED, UON CHARACTERISTICS AS NOTED
- EXISTING UNDERGROUND DUCTBANK, CONCRETE ENCASED, UON CHARACTERISTICS AS NOTED
- ⊕ SYMBOL WHEN USED, REFERS TO SPECIFIC DUCTBANK SECTION DETAIL DUCTBANK SECTION LOOKING IN DIRECTION OF ARROWS; HEAVY LINE INDICATES BOTTOM OF DUCT.
- SPARE DUCT (TYPICAL)
- EXISTING CABLE DESIGNATION (TYPICAL) CHARACTERISTICS PER CABLE SCHEDULE
- OCCUPIED DUCT, UNIDENTIFIED CABLE
- NEW CABLE DESIGNATION (TYPICAL) CHARACTERISTICS PER CABLE SCHEDULE
- U— UNDERGROUND CONDUIT, CONCRETE ENCASED, UON
- U— EXISTING UNDERGROUND CONDUIT, CONCRETE ENCASED, UON
- TYPICAL DESIGNATIONS TO BE USED IN CONJUNCTION WITH CONDUIT SYMBOLS
 - UP— UNDERGROUND PRIMARY
 - US— UNDERGROUND SECONDARY
 - UT— UNDERGROUND TELEPHONE
 - UFA— UNDERGROUND FIRE ALARM
 - USL— UNDERGROUND STREET LIGHTING
 - UTV— UNDERGROUND TELEVISION CABLE
- ⊕ MANHOLE OR HANDHOLE, AS NOTED
- ⊕ EXISTING MANHOLE OR HANDHOLE, AS NOTED
- INDICATES FRONT
- ⊕ PAD MOUNTED TRANSFORMER
- INDICATES FRONT
- ⊕ EXISTING PAD MOUNTED TRANSFORMER

ABBREVIATIONS

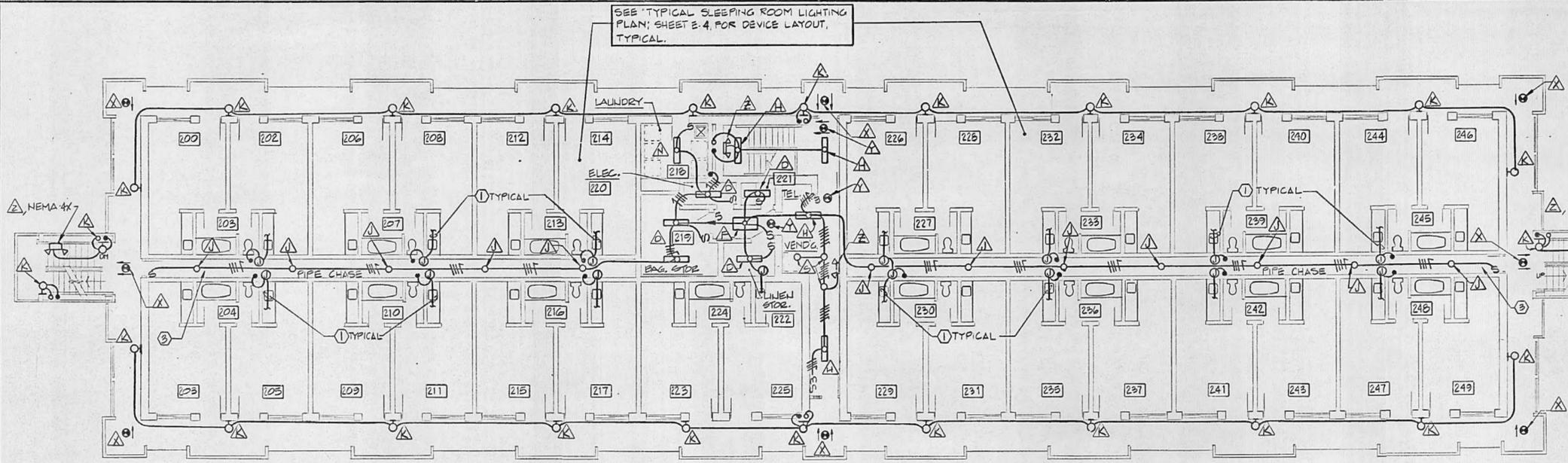
- A.F.F. ABOVE FINISHED FLOOR
- A.F.G. ABOVE FINISHED GRADE
- C CONDUIT
- CKT. CIRCUIT
- E.C. EMPTY CONDUIT
- EQUIP. EQUIPMENT
- E.W.C. ELECTRIC WATER COOLER
- EXIST. EXISTING
- GFI GROUND FAULT INTERRUPTER
- GND. GROUND
- HID HIGH INTENSITY DISCHARGE
- M.L.O. MAIN LUGS ONLY
- M.C.B. MAIN CIRCUIT BREAKER
- N.I.C. NOT IN CONTRACT
- PNL. PANEL
- RECEPT. RECEPTACLE
- REQ'D. REQUIRED
- U.O.N. UNLESS OTHERWISE NOTED
- WP INDICATES WEATHERPROOF EQUIPMENT



REVISIONS		
NO.	DESCRIPTION	DATE

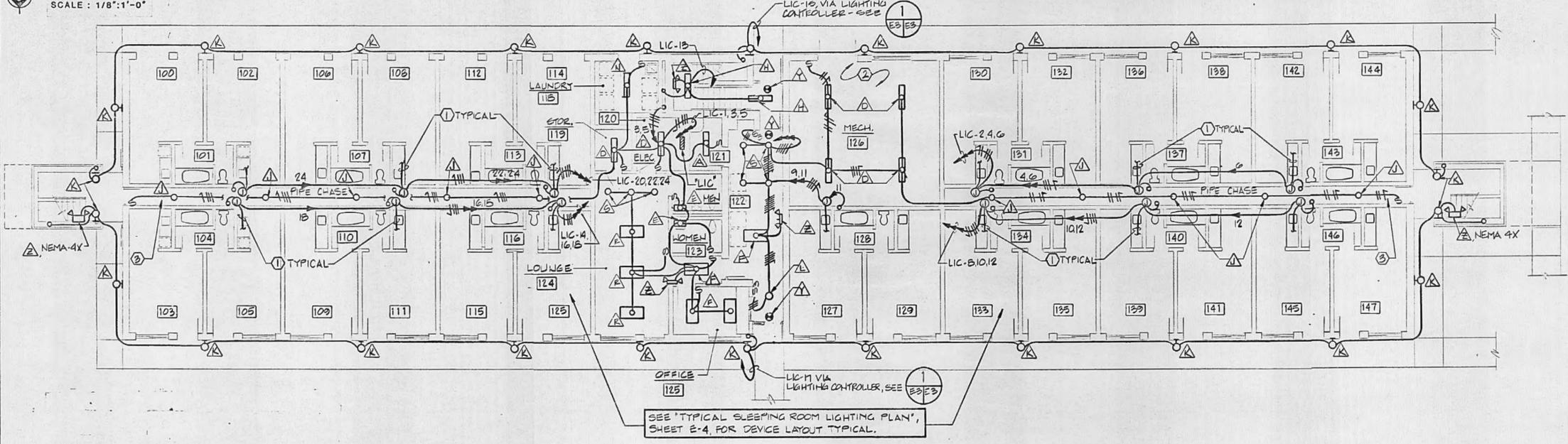
	WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.
	EFD DWG. NO. 295962 JOB ORDER NO. 5F7126 STA. PROJ. NO. DES. JB PROJ. MGR. CH. ARCH'ENR. EFD RVD. J.P.P. & F.P. MGR. BR. MGR. P.M. DES. DIR. K.D. APPROVED DATE 3-12-89 ACTIVITY - SATISFACTORY TO APPROVE DATE 3-14-89 FOR EFD FOR COMANDEER NAVFAC	NAVAL STATION ROTH PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION
SIZE CODE IDENT NO. F 80091	NAVFAC DRAWING NO. 4195962	CONGR. CONTR. NO. N62470-87-B-7126 SCALE NONE SPEC 05-87-7126 SHEET 63 of 73

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

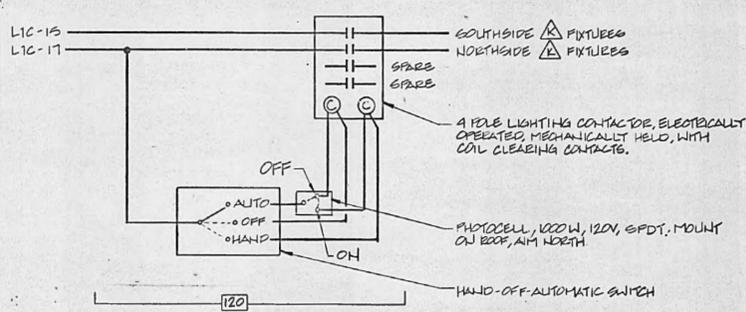


- NOTES THIS SHEET**
- SEE "TYPICAL SLEEPING ROOM LIGHTING PLAN" SHEET E-4 FOR COUPLER LAYOUT.
 - LIGHTING FIXTURES THIS ROOM SHALL BE PENDANT MOUNTED, PENDANT LENGTHS AS REQUIRED TO CLEAR DUCTWORK, PIPING, ETC..
 - CONDUIT IN PIPE CHASE SHALL BE RUN EXPOSED.

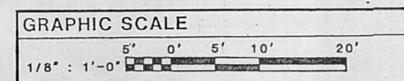
BEQ- SECOND FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"



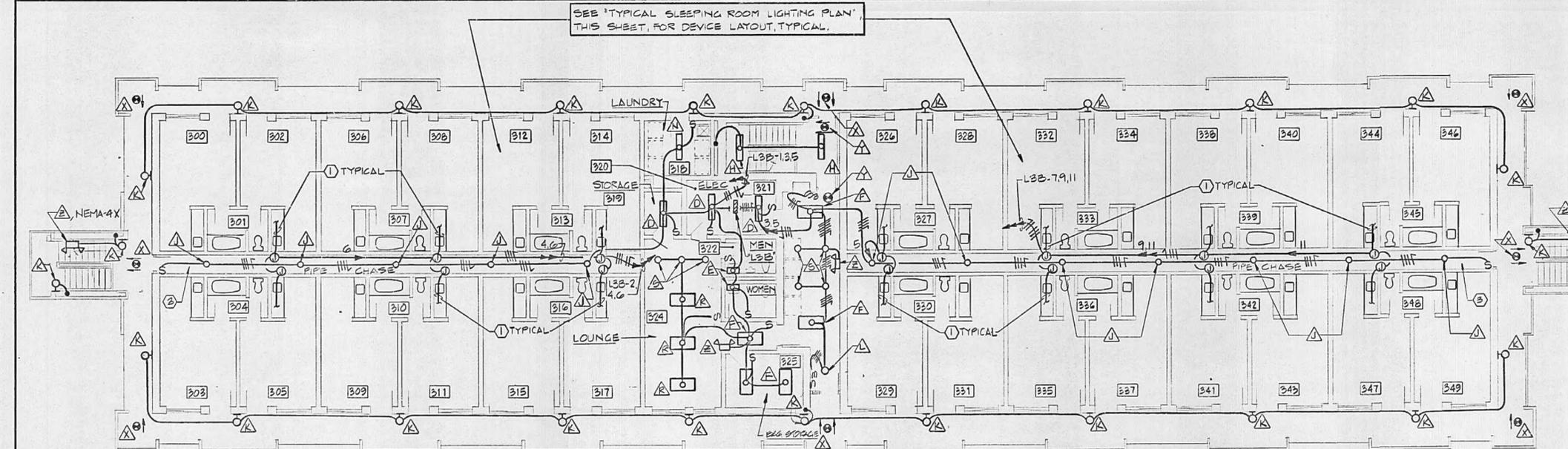
BEQ- FIRST FLOOR LIGHTING
SCALE: 1/8" = 1'-0"



LIGHTING CONTROL DIAGRAM
NO SCALE



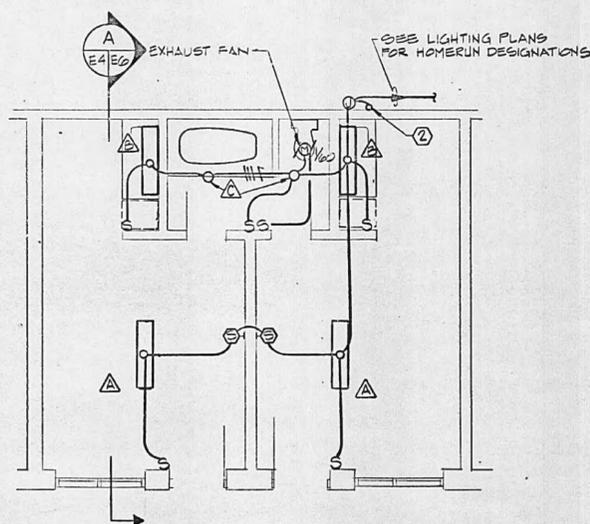
	PROFESSIONAL ARCHITECTURAL CONSULTANTS WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.
	EFD DWG NO 295964 JOB ORDER NO 5F7126 STA PROJ NO DES JOB PROJ MGR EFD RVD BR MGR APPROVED DATE ACTIVITY-SATISFACTORY TO APPROVED DATE FOR EFD FOR COMMANDER NAVFAC	NAVAL STATION ROTHR PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOO, & EDF ADDITION BEQ 1st & 2nd FLOOR LIGHTING PLANS



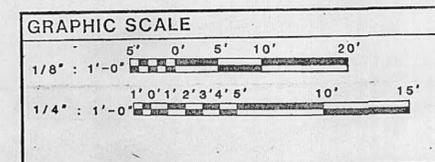
BEQ - THIRD FLOOR LIGHTING PLAN CONSTRUCTION OPTION
 SCALE: 1/8" = 1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

- NOTES THIS SHEET**
- ① SEE 'TYPICAL SLEEPING ROOM LIGHTING PLAN', THIS SHEET, FOR CONTINUATION.
 - ② CONDUIT RISER BETWEEN 1ST & 2ND FLOORS ONLY.
 - ③ CONDUIT SHALL BE RUN EXPOSED IN PIPE CHASE

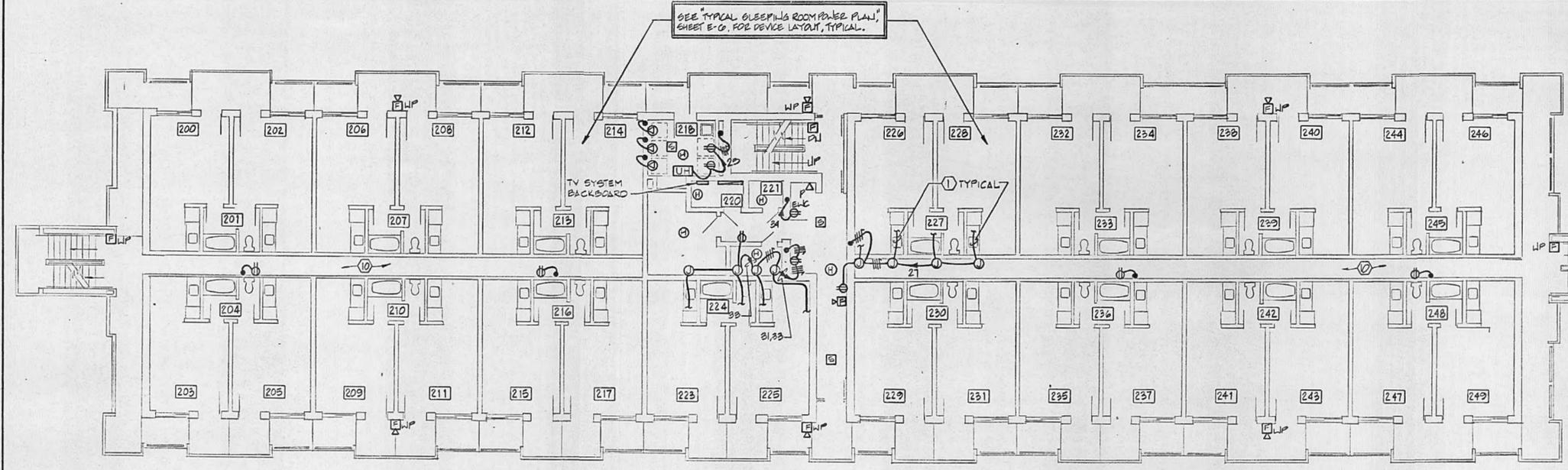


TYPICAL SLEEPING ROOM LIGHTING PLAN
 SCALE: 1/4" = 1'-0"



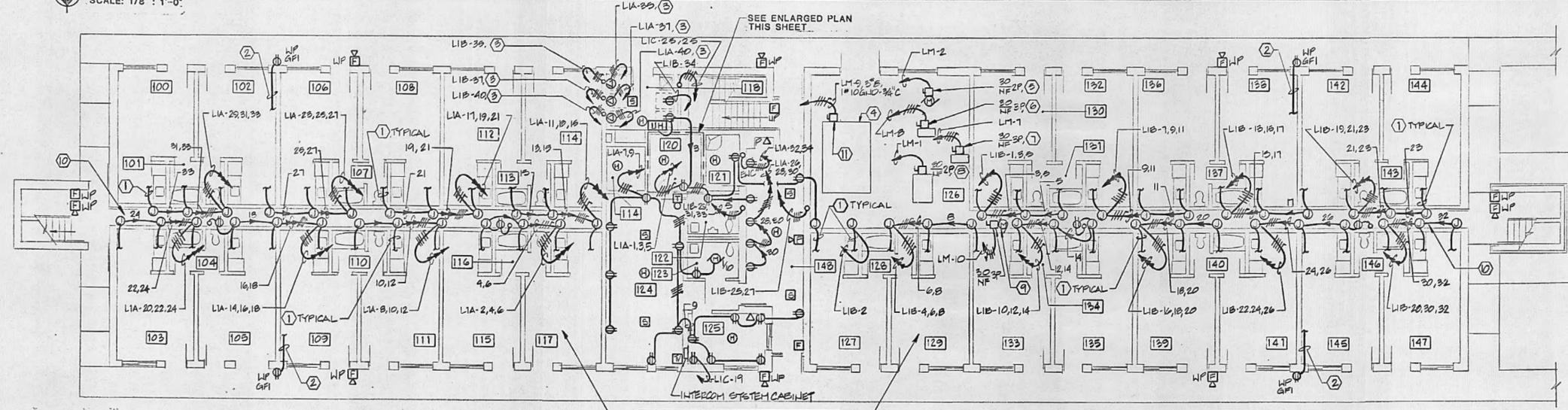
	PROFESSIONAL ARCHITECTURAL CONSULTING ENGINEERS WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING, PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VA.
	EFD DWS NO 295965 JOB ORDER NO 5F7126 STA PROJ NO DES JB DRWN TJW PRJ MOR CH ARCH/ENR EFD RVD J.F.P. APPROVED DATE ACTIVITY SATISFACTORY TO APPROVED DATE 5-1-87 FOR EEP FOR COMMANDER NAVFAC	ROTHR PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ, & EDF ADDITION BEQ 3rd FLOOR LIGHTING PLAN TYPICAL SLEEPING ROOM LIGHTING PLAN

REVISIONS		
NO.	DESCRIPTION	DATE

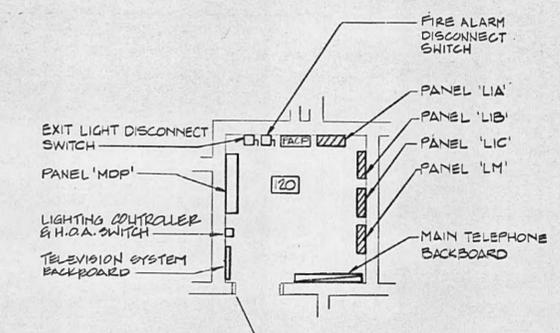


BEQ- SECOND FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

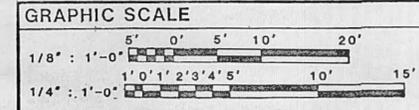
- NOTES THIS SHEET**
- SEE "TYPICAL SLEEPING ROOM POWER PLAN", SHEET E-6 FOR CATALOGUE.
 - CONNECT TO SLEEPING ROOM RECEPTACLE CIRCUIT.
 - 3" x 10" x 1/2" GJR - 1/2" C.
 - AHJ, 20EV, 3Ø - BASE BID: BHP - CONSTR. OPTION: 7 1/2 HP
 - HOT WATER RECIRC. PUMP, 1/6 HP, 120V
 - PUMP P-2, 3/4 HP, 20EV, 3Ø
 - PUMP P-1, 1/2 HP, 20EV, 3Ø
 - VALVE, 3/4 HP, 120V
 - SUMP PUMP, 1/2 HP, 20EV, 3Ø
 - CONDUIT IN PIPE CHASE SHALL BE RUN EXPOSED
 - BASE BID: 3ØA, NF, 3Ø - CONSTR. OPTION: 60A, NF, 3Ø



BEQ- FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

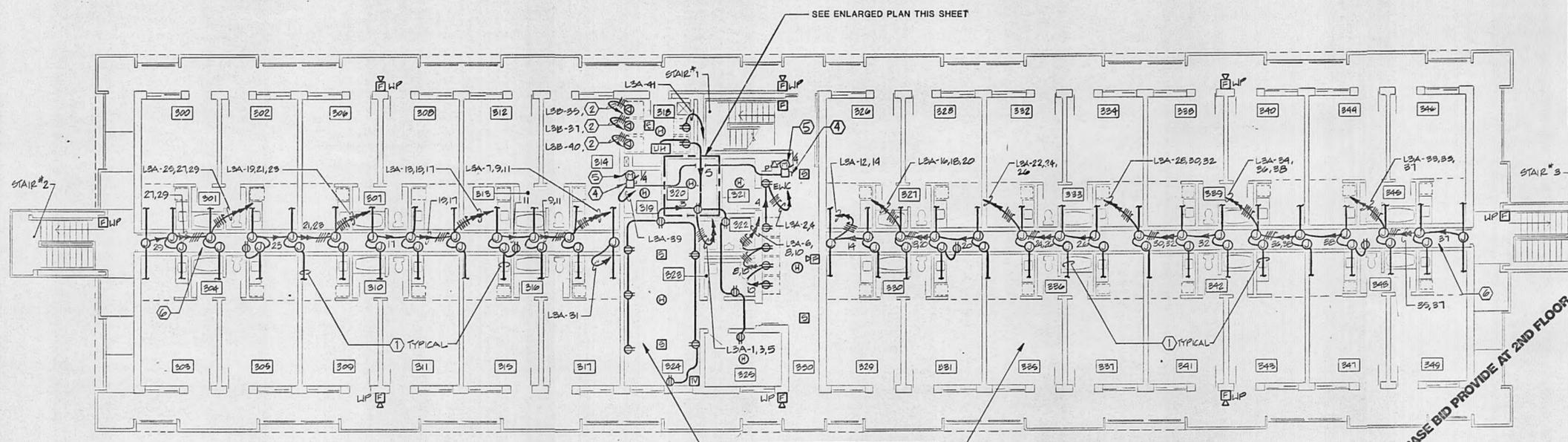


ELECTRICAL ROOM PLAN
SCALE: 1/4" = 1'-0"



	PROFESSIONAL ARCHITECTURAL CONSULTING ENGINEERS WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING, PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.
	EFD DWG NO 295966 JOB ORDER NO 5F7126 STA PROJ NO DES JIB DRWN TJW PROJ MGR CH ARCH/ENGR EFD PVD J.P.P. F.P. J.E.S. DES DIR APPROVED DATE 2-14-87 FOR EFD FOR COMMANDER NAVFAC	ROTH PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION BEQ 1st & 2nd FLOOR POWER PLANS

REVISIONS		
NO.	DESCRIPTION	DATE

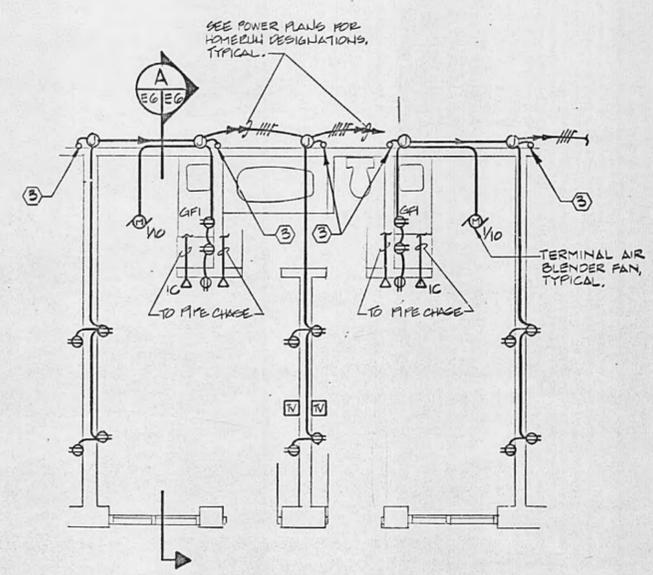


- NOTES THIS SHEET**
- SEE 'TYPICAL SLEEPING ROOM POWER PLAN' THIS SHEET FOR CONTINUATION.
 - 3" O.D. & 1" I.D. GALV. 1/2" C.
 - CONDUIT Riser BETWEEN 1ST & 2ND FLOORS ONLY
 - 30 2P, NEMA 3R NF
 - EXHAUST FAN ON ROOF
 - CONDUIT IN PIPE CHASE SHALL BE RUN EXPOSED.

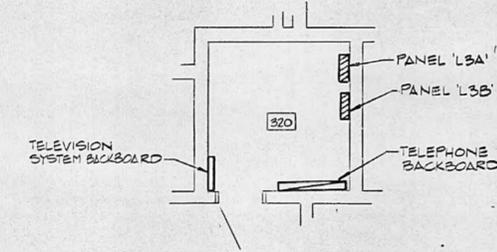
BEQ- THIRD FLOOR POWER PLAN CONSTRUCTION OPTION
SCALE: 1/8" = 1'-0"

SEE 'TYPICAL SLEEPING UNIT POWER PLAN', THIS SHEET, FOR DEVICE LAYOUT, TYPICAL.

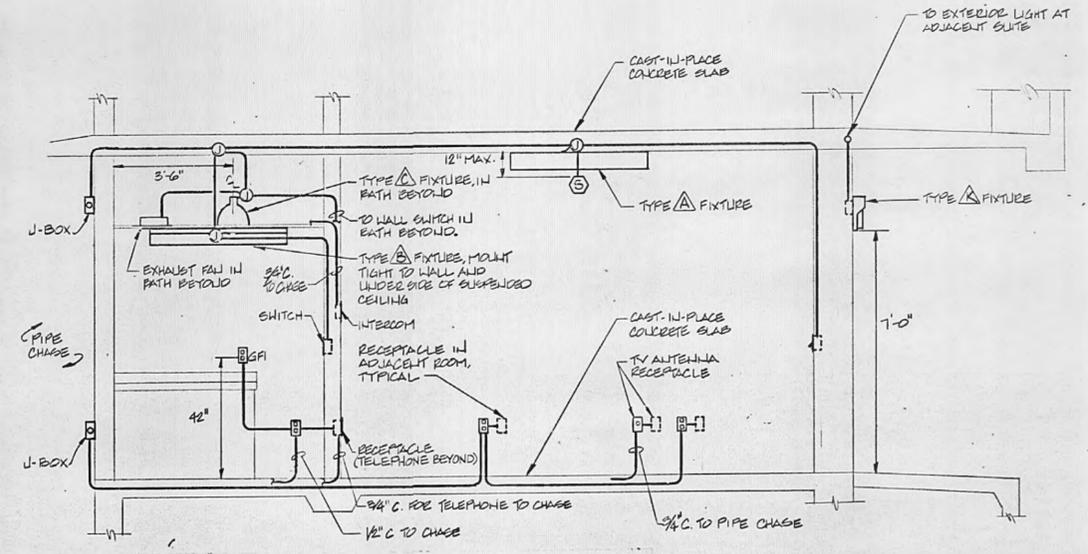
CONSTRUCTION OPTION - UNDER BASE BID PROVIDE AT 2ND FLOOR



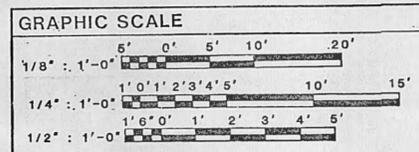
TYPICAL SLEEPING ROOM POWER PLAN
SCALE: 1/4" = 1'-0"



ELECTRICAL ROOM PLAN CONSTRUCTION OPTION
SCALE: 1/4" = 1'-0"

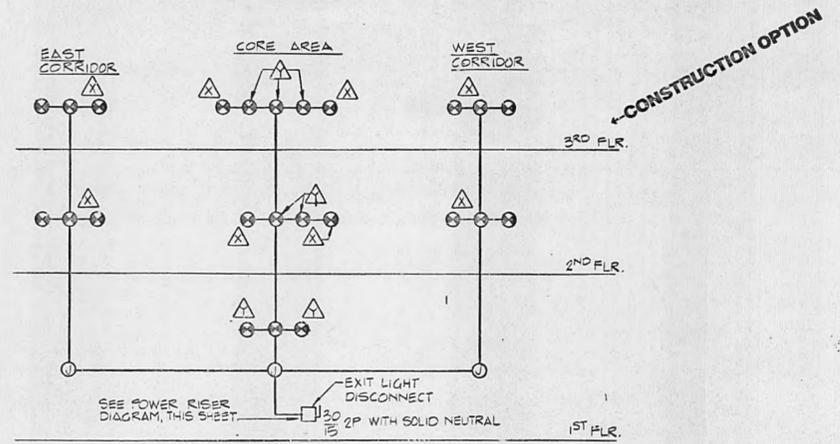


TYPICAL SLEEPING ROOM CONDUIT ROUTING
SCALE: 1/2" = 1'-0"

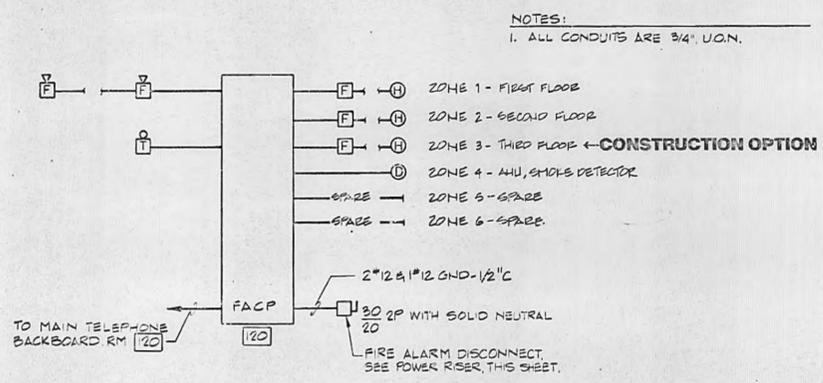


	PROFESSIONAL ARCHITECTURAL CONSULTING WILLIAM TAZEWELL AND COOK ARCHITECTURE, ENGINEERING PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VA.
	JOB ORDER NO. 295967 STA. PROJ. NO. NSG470-87-126 DES. J.B. DRWN. T.J.W. PROJ. MGR. CH. ARCH. T.M.R. E.P.D. R.V.D. J.P.P. J.L.L. REVISIONS: 1. DES. BY J.B. DATE 3-14-79 APPROVED: DATE 3-14-79 ACTIVITY - SATISFACTORY TO DATE 3-14-79 FOR E.P.D. FOR COMMANDER NAVFAC	ROTHR PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION BEQ 3rd FLOOR POWER PLAN TYPICAL SLEEPING ROOM POWER PLAN SIZE CODE IDENT NO. NAVFAC DRAWING NO. F 8009I 4195967 CONSTR. CONTR. NO. NSG470-87-B-7126 SCALE NOTED SPEC 05-87-7126 SHEET 63 OF 76

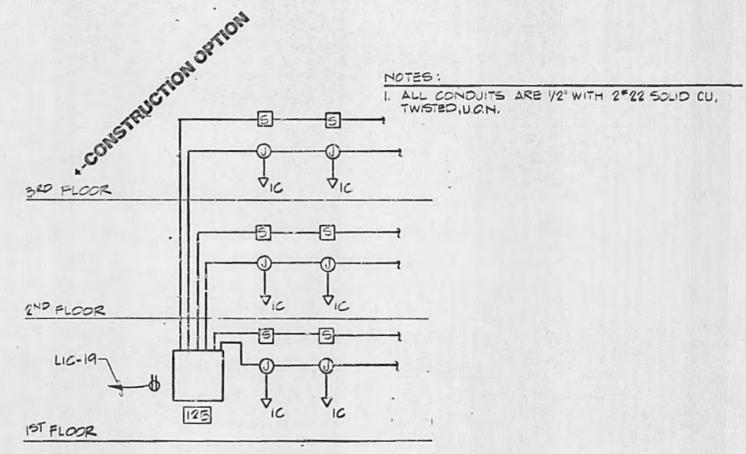
REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED



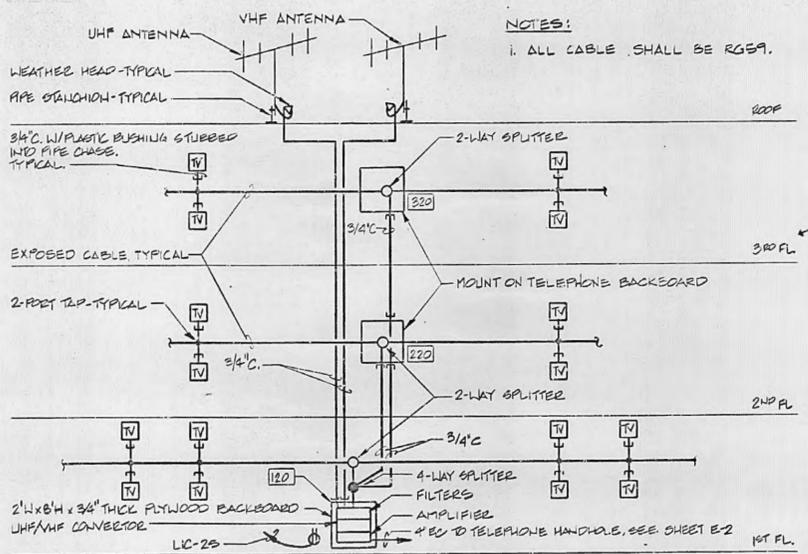
EXIT LIGHT RISER DIAGRAM
NO SCALE



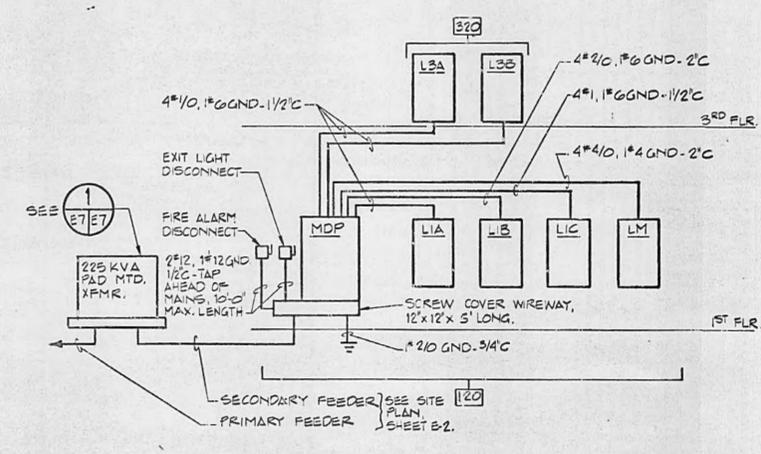
FIRE ALARM RISER DIAGRAM
NO SCALE



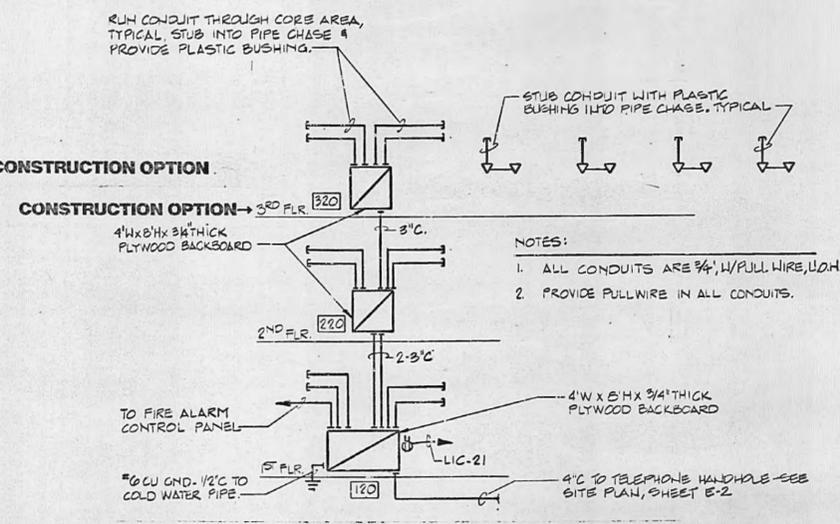
INTERCOM SYSTEM RISER DIAGRAM
NO SCALE



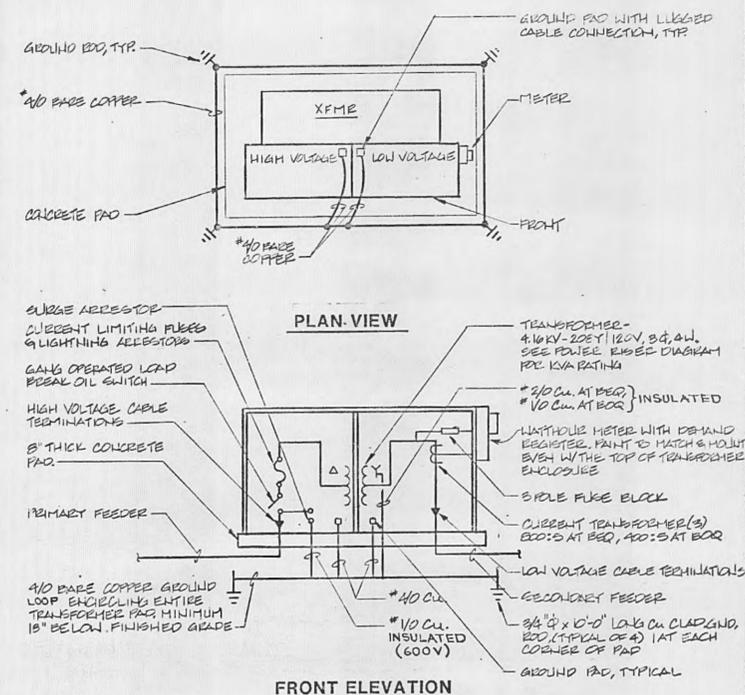
TELEVISION SYSTEM RISER DIAGRAM
NO SCALE



POWER RISER DIAGRAM
NO SCALE



TELEPHONE CONDUIT SYSTEM RISER DIAGRAM
NO SCALE



1 PAD MOUNTED TRANSFORMER DETAIL
NO SCALE

GENERAL NOTE- RISER DIAGRAMS

1. ALL RISER DIAGRAMS INDICATE TYPICAL DEVICE CONNECTIONS. REFER TO POWER PLANS, SHEETS E-3 AND E-6 FOR ACTUAL QUANTITY AND LOCATIONS OF DEVICES.

NOTES:
1. ALL CONDUITS ARE 3/4" U.G.N.

NOTES:
1. ALL CABLE SHALL BE RG59.

NOTES:
1. ALL CONDUITS ARE 1/2" WITH 2" 22 SOLID CU, TWISTED, U.G.N.

NOTES:
1. ALL CONDUITS ARE 3/4", W/PULL WIRE, U.G.N.
2. PROVIDE PULLWIRE IN ALL CONDUITS.

	PROFESSIONAL ARCHITECTURAL CONSULTING ENGINEERS WILLIAMS, TAZEVELL AND COOKE ARCHITECTURE, ENGINEERING, PLANNING, INTERIORS NORFOLK, VIRGINIA	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA
	PROJECT NO. 295968 STA. PROJ. NO. 57126 DES. JB PROJ. MGR. CH ARCH/ENGR EFD. RVD APPR. DATE 3-1-89 ACTIVITY - SATISFACTORY TO	NAVAL STATION ROTH PERONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA BEQ, BOQ & EDF ADDITION BEQ RISER DIAGRAMS

PANELBOARD SCHEDULES

REVISIONS		
NO.	DESCRIPTION	DATE

PANEL L1A
225 AMP MLO - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
RECEPTACLES	12	22	20	12	1	2	12	RECEPTACLES ①
WASHER	7	22	20	12	3	4	12	RECEPTACLES ①
VENDING	8.3	22	20	12	5	6	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	7	8	12	RECEPTACLES ①
RECEPTACLES	9	22	20	12	9	10	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	11	12	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	13	14	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	15	16	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	17	18	15	RECEPTACLES ①
RECEPTACLES	12	22	20	12	19	20	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	21	22	15	RECEPTACLES ①
RECEPTACLES	12	22	20	12	23	24	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	25	26	15	RECEPTACLES ①
RECEPTACLES	12	22	20	12	27	28	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	29	30	15	RECEPTACLES ①
RECEPTACLES	12	22	20	12	31	32	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	33	34	15	RECEPTACLES ①
DRYER	22	22	30	10	35	36	22	DRYER
DRYER	22	22	30	10	37	38	22	DRYER
DRYER	22	22	30	10	39	40	22	DRYER
DRYER	22	22	30	10	41	42	22	DRYER

TOTAL AMPS 103 92 106
TOTAL CONN AMPS 177 181 191
REMARKS: ① 1st AND 2nd FLOOR, ② 2nd FLOOR

PANEL L1B
225 AMP MLO - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
RECEPTACLES	9	22	20	12	1	2	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	3	4	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	5	6	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	7	8	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	9	10	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	11	12	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	13	14	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	15	16	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	17	18	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	19	20	12	RECEPTACLES ①
RECEPTACLES	12	22	20	12	21	22	12	RECEPTACLES ①
RECEPTACLES	15	22	20	12	23	24	12	RECEPTACLES ①
RECEPTACLES	11	22	20	12	25	26	11	RECEPTACLES ①
RECEPTACLES	14	22	20	12	27	28	14	RECEPTACLES ①
RECEPTACLES	8.3	22	20	12	29	30	8.3	RECEPTACLES ①
RECEPTACLES	14	22	20	12	31	32	14	RECEPTACLES ①
RECEPTACLES	11	22	20	12	33	34	11	RECEPTACLES ①
DRYER	22	22	30	10	35	36	22	DRYER
DRYER	22	22	30	10	37	38	22	DRYER
DRYER	22	22	30	10	39	40	22	DRYER
DRYER	22	22	30	10	41	42	22	DRYER

TOTAL AMPS 98 101 106
TOTAL CONN AMPS 179 196 197
REMARKS: ① 1st AND 2nd FLOOR, ② 2nd FLOOR

PANEL L1C
225 AMP MLO - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
1ST FL CORE LTG	15	10	20	12	1	2	12	SLEEP. RM. LTG ①
2ND FL CORE LTG	8.3	10	20	12	3	4	8.3	SLEEP. RM. LTG ①
2ND FL CORE LTG	10	10	20	12	5	6	8.3	SLEEP. RM. LTG ①
1ST FL CORE LTG	10	10	20	12	7	8	8.3	SLEEP. RM. LTG ①
SLEEP. RM. LTG	4.2	10	20	12	9	10	8.3	SLEEP. RM. LTG ①
SLEEP. RM. LTG	8.3	10	20	12	11	12	8.3	SLEEP. RM. LTG ①
STAIR LTG	5	10	20	12	13	14	8.3	SLEEP. RM. LTG ①
EXT. CORR. LTG *	8.2	10	20	12	15	16	8.3	SLEEP. RM. LTG ①
EXT. CORR. LTG *	8.2	10	20	12	17	18	8.3	SLEEP. RM. LTG ①
RASING SYSTEM	4.2	10	20	12	19	20	8.3	SLEEP. RM. LTG ①
TELEPHONE SYST.	4.2	10	20	12	21	22	8.3	SLEEP. RM. LTG ①
WASHER	7	10	20	12	23	24	8.3	SLEEP. RM. LTG ①
WASHER	7	10	20	12	25	26	0	SPACE
SPARE	0	10	20	12	27	28	0	SPACE
SPARE	0	10	20	12	29	30	0	SPACE
SPACE ONLY	0	10	20	12	31	32	0	SPACE ONLY
SPACE ONLY	0	10	20	12	33	34	0	SPACE ONLY
SPACE ONLY	0	10	20	12	35	36	0	SPACE ONLY
SPACE ONLY	0	10	20	12	37	38	0	SPACE ONLY
SPACE ONLY	0	10	20	12	39	40	0	SPACE ONLY
SPACE ONLY	0	10	20	12	41	42	0	SPACE ONLY

TOTAL AMPS 41 25 34
TOTAL CONN AMPS 74 58 67
REMARKS: * VIA PHOTOCELL, ① 1st AND 2nd FLOOR, ② 2nd FLOOR

PANEL L3A CONSTRUCTION OPTION
225 AMP MLO - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
RECEPTACLES	6	10	20	12	1	2	5	EMC
RECEPTACLES	11	10	20	12	3	4	8.3	VENDING
WASHER	7	10	20	12	5	6	8.3	VENDING
RECEPTACLES	15	10	20	12	7	8	8.3	VENDING
RECEPTACLES	12	10	20	12	9	10	8.3	VENDING
RECEPTACLES	15	10	20	12	11	12	6	RECEPTACLES
RECEPTACLES	12	10	20	12	13	14	15	RECEPTACLES
RECEPTACLES	15	10	20	12	15	16	12	RECEPTACLES
RECEPTACLES	12	10	20	12	17	18	15	RECEPTACLES
RECEPTACLES	15	10	20	12	19	20	12	RECEPTACLES
RECEPTACLES	12	10	20	12	21	22	15	RECEPTACLES
RECEPTACLES	15	10	20	12	23	24	12	RECEPTACLES
RECEPTACLES	12	10	20	12	25	26	15	RECEPTACLES
RECEPTACLES	15	10	20	12	27	28	12	RECEPTACLES
RECEPTACLES	6	10	20	12	29	30	15	RECEPTACLES
RECEPTACLES	12	10	20	12	31	32	12	RECEPTACLES
RECEPTACLES	15	10	20	12	33	34	15	RECEPTACLES
RECEPTACLES	12	10	20	12	35	36	12	RECEPTACLES
RECEPTACLES	15	10	20	12	37	38	15	RECEPTACLES
EXT. FAUSE ROOF WASHER	7	10	20	12	39	40	0	SPARE
WASHER	7	10	20	12	41	42	0	SPARE

TOTAL AMPS 78 89 77
TOTAL CONN AMPS 160 160 145
REMARKS:

PANEL L3B CONSTRUCTION OPTION
225 AMP MLO - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
CORE AREA LTG	13	10	20	12	1	2	8.2	SLEEP. RM. LTG
CORE AREA LTG	8.3	10	20	12	3	4	8.2	SLEEP. RM. LTG
SLEEP. RM. LTG	8.2	10	20	12	5	6	8.2	SLEEP. RM. LTG
SLEEP. RM. LTG	8.2	10	20	12	7	8	0	SPACE
SLEEP. RM. LTG	8.2	10	20	12	9	10	0	SPACE
SLEEP. RM. LTG	8.2	10	20	12	11	12	0	SPACE
SPARE	0	10	20	12	13	14	0	SPACE
SPARE	0	10	20	12	15	16	0	SPACE
SPARE	0	10	20	12	17	18	0	SPACE
SPACE ONLY	0	10	20	12	19	20	0	SPACE ONLY
SPACE ONLY	0	10	20	12	21	22	0	SPACE ONLY
SPACE ONLY	0	10	20	12	23	24	0	SPACE ONLY
SPACE ONLY	0	10	20	12	25	26	0	SPACE ONLY
SPACE ONLY	0	10	20	12	27	28	0	SPACE ONLY
SPACE ONLY	0	10	20	12	29	30	0	SPACE ONLY
SPACE ONLY	0	10	20	12	31	32	0	SPACE ONLY
SPACE ONLY	0	10	20	12	33	34	0	SPACE ONLY
DRYER	22	10	10	30	35	36	0	SPACE ONLY
DRYER	22	10	10	30	37	38	0	SPACE ONLY
DRYER	22	10	10	30	39	40	22	DRYER
DRYER	22	10	10	30	41	42	22	DRYER

TOTAL AMPS 43 39 60
TOTAL CONN AMPS 51 69 91
REMARKS:

PANEL L1M
225 AMP MLO - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
BOILER	14	22	20	12	1	2	4.4	HWP-1
SPARE	0	22	20	12	3	4	0	SPARE
SPARE	0	22	20	12	5	6	0	SPARE
PUMP P1	5.7	22	20	12	7	8	3.1	PUMP P2
AHU	24	22	50	8	9	10	2.2	SLIP PUMP
SPACE ONLY	0	11	12	2/0	300	22	139	COOL. UNIT
SPACE ONLY	0	13	14				0	SPACE ONLY
SPACE ONLY	0	15	16				0	SPACE ONLY
SPACE ONLY	0	17	18				0	SPACE ONLY

TOTAL AMPS 44 30 30
TOTAL CONN AMPS 192 174 174
REMARKS:

CONSTRUCTION OPTION
UNDER BASE BID AMPS/PHASE = 89.7,
WIRE = #1 AND BREAKER SIZE = 150A-3P

PANEL MDP
800 AMP MCB - 120/208 VOLT, 3 PHASE, 4 WIRE - SURFACE MOUNTED

LOAD SERVED	LOAD AMPS A B C	WIRE NO. SIZE	TRIP NO.	PHASE A B C	WIRE NO. SIZE	TRIP NO.	LOAD AMPS A B C	LOAD SERVED
PANEL L1A	177	181	191	22	150	1/0	1	192
PANEL L1B	179	196	197	22	175	2/0	3	174
PANEL L1C	74	58	67	22	125	1	5	160
SPACE ONLY	0	0	0	22	125	1	5	145
SPACE ONLY	0	0	0	22	125	1	5	51
SPACE ONLY	0	0	0	22	125	1	5	69
SPACE ONLY	0	0	0	22	125	1	5	91
SPACE ONLY	0	0	0	22	125	1	5	0
SPACE ONLY	0	0	0	22	125	1	5	0

TOTAL AMPS 451 435 455
TOTAL CONN AMPS 835 838 865
REMARKS: SERVICE ENTRANCE RATED

PANEL L3C CONSTRUCTION OPTION - PROVIDE 3-POLE SPACE UNDER BASE BID

PANEL L3D CONSTRUCTION OPTION - PROVIDE 3-POLE SPACE UNDER BASE BID

PROFESSIONAL ARCHITECTURE CONSULTING ENGINEERS
WILLIAMS, TAZEWELL AND COOKE ARCHITECTURE, ENGINEERING PLANNING, INTERIORS NORFOLK, VIRGINIA

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION
NAVAL STATION NORFOLK, VA.

ROTHR PERSONNEL SUPPORT FACILITIES NSGA NORTHWEST, CHESAPEAKE, VIRGINIA
BEQ, BOQ & EDF ADDITION

BEQ - PANELBOARD SCHEDULES

PROJ. MGR. CH. ARCH. ENGR. DES. J.B. DRWN. T.J.W.
E.P.D. R.V.D. F.P. J.E.R.
S.T.R. PROJ. NO. 4195969
NO. 013615

DATE 3-14-99
FOR E.P.D. FOR COMMANDER NAVFAC

SCALE NONE SPEC 05-87-7126 SHEET 70 OF 76