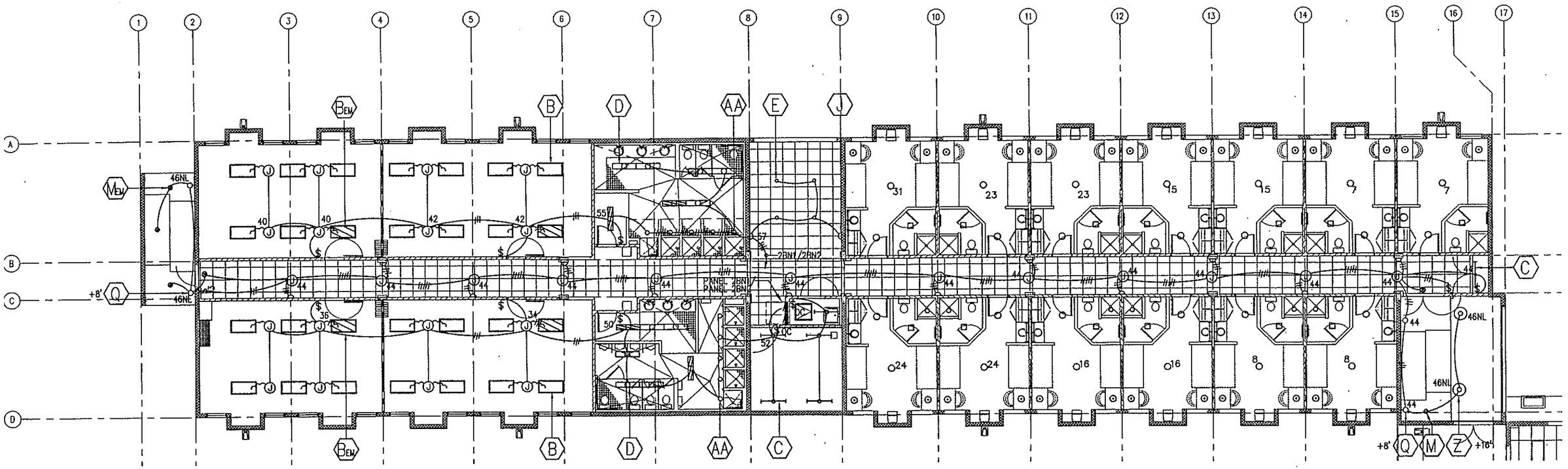


REFERENCE NORTH
WEST EAST
SOUTH

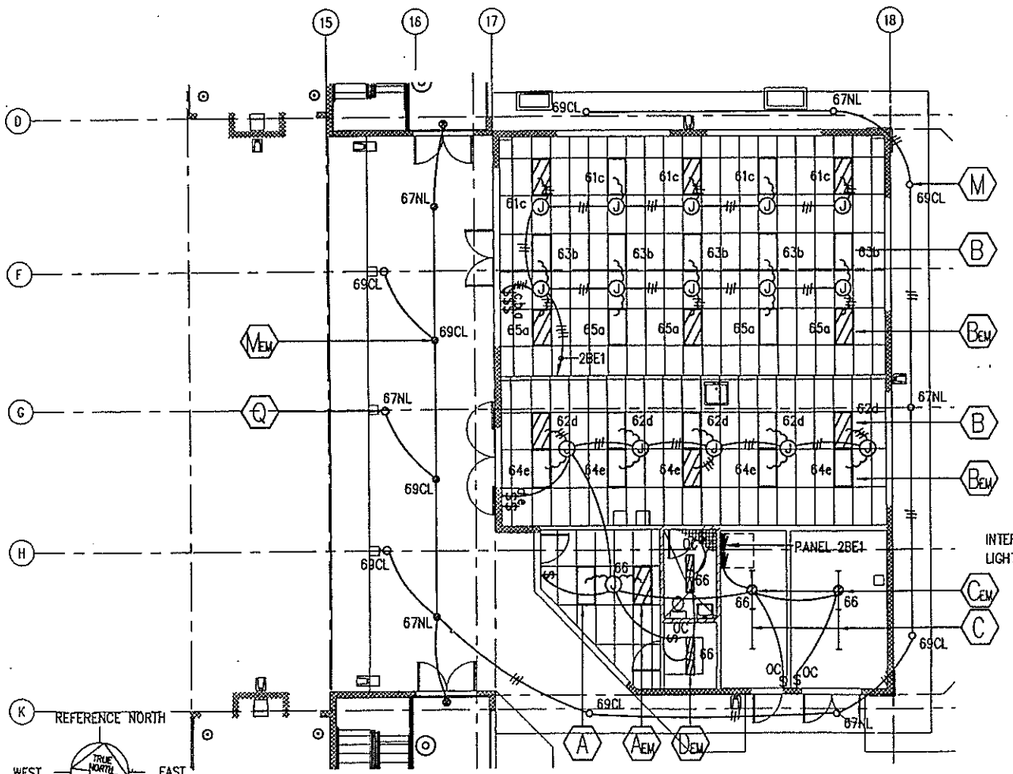
BILLETS PARTIAL FIRST FLOOR LIGHTING PLAN (SECOND FLOOR SIMILAR)

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

NOTE: SEE TYPICAL LIVING UNIT LIGHTING AND POWER PLAN.

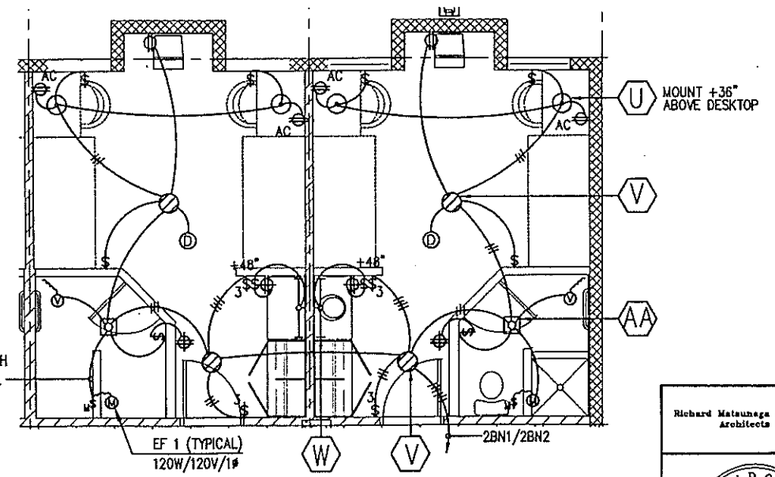
1/8" = 1'-0"

1/4" = 1'-0"



BILLETS PARTIAL FIRST FLOOR LIGHTING PLAN

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



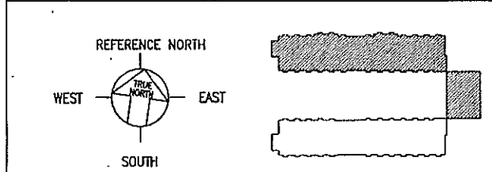
TYPICAL UNIT LIGHTING AND POWER PLAN

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

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

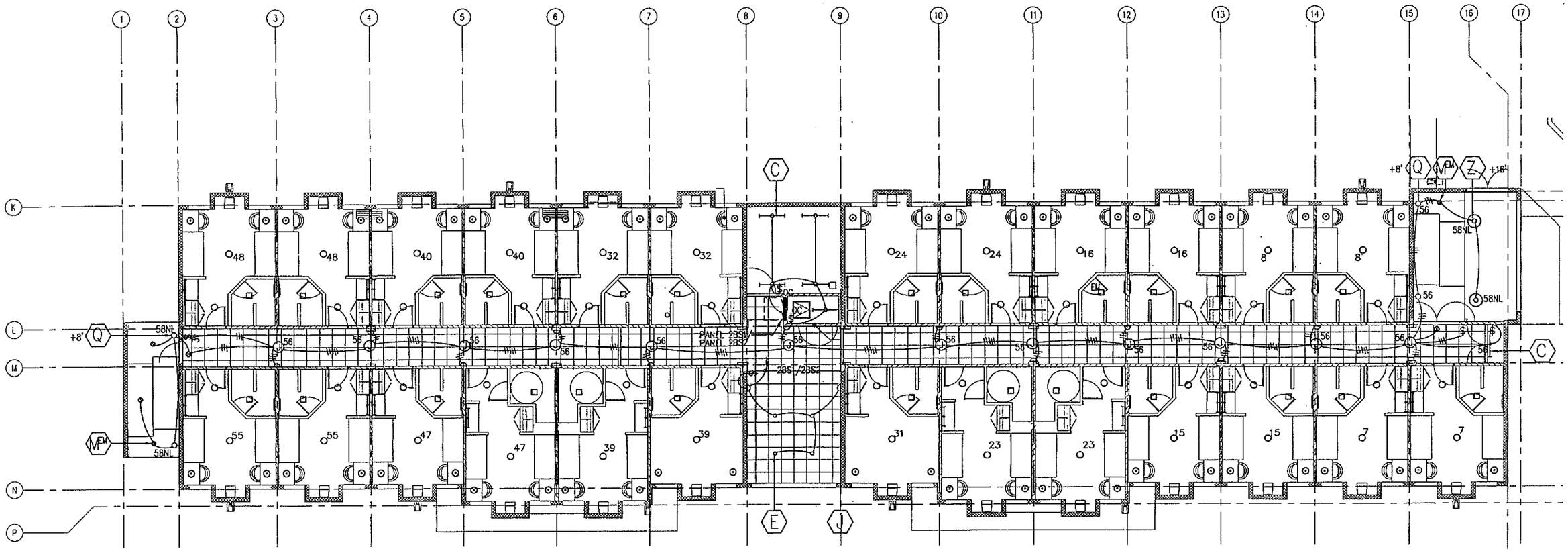
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PARTIAL FIRST FLOOR LIGHTING PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: –
ENGINEER: –

APPROVED: HNARNG, FAC MGMT OFFICER
APPROVED: HQB, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE: NOTED
DWG # E2.1
SHEET 120 OF 228



REFERENCE NORTH

WEST — TRUE NORTH — EAST

SOUTH

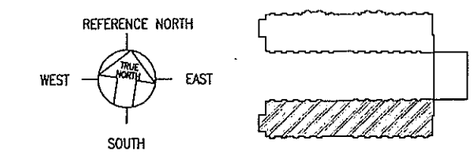
BILLETS - PARTIAL FIRST FLOOR LIGHTING PLAN

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

(SECOND FLOOR SIMILAR)

NOTE: SEE DRAWING NO. E2.1 FOR TYPICAL POWER AND LIGHTING PLAN.

KEY PLAN FOR BILLETS



2' 0 5' 10'

1/4" = 1'-0"

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

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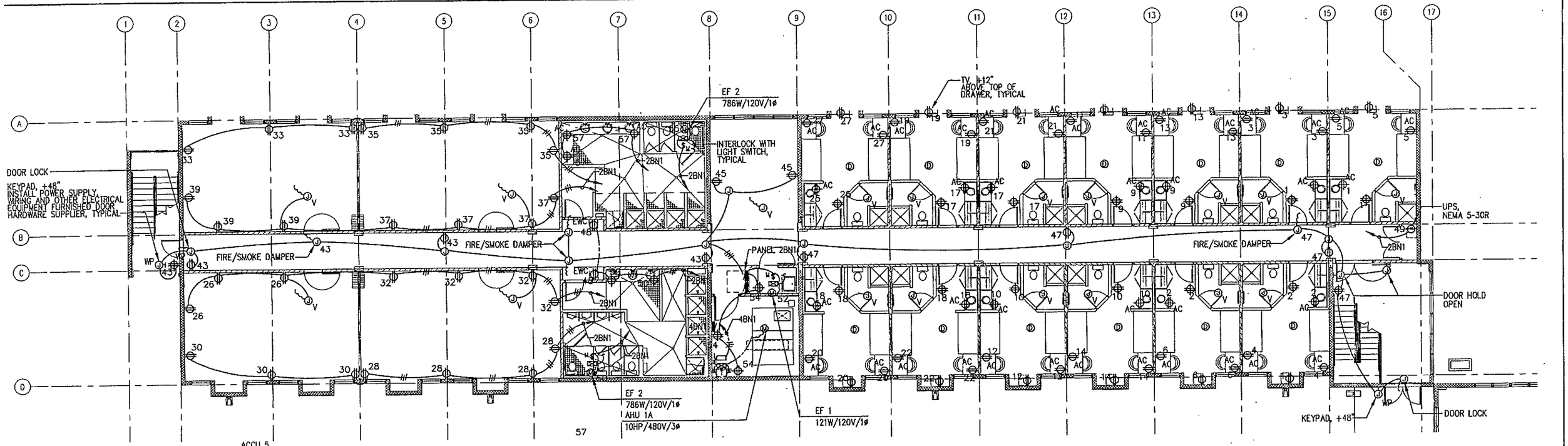
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PARTIAL FIRST FLOOR LIGHTING PLAN

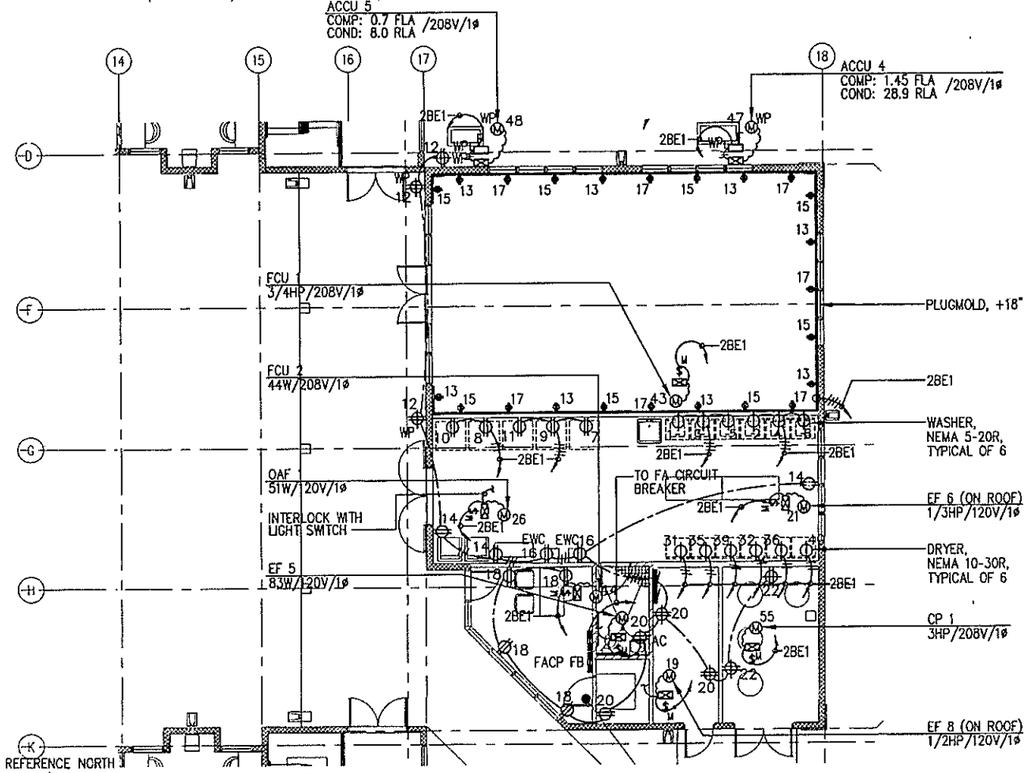
DESIGNED:	GCA
DRAWN:	GCA
SAFETY:	–
ENGINEER:	–
APPROVED: HIANG, FAC MGMT OFFICER	APPROVED: NGB, USPFO FOR HAWAII
APPROVED: HIANG, CONTRACTING & ENGINEERING OFFICER	
DATE	3-28-00
SCALE	NOTED
DWG #	E2.2
SHEET	121 OF 228



BILLETS - PARTIAL FIRST FLOOR POWER PLAN

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

NOTE: SEE DRAWING NO. E2.1 FOR TYPICAL LIVING UNIT LIGHTING AND POWER PLAN.



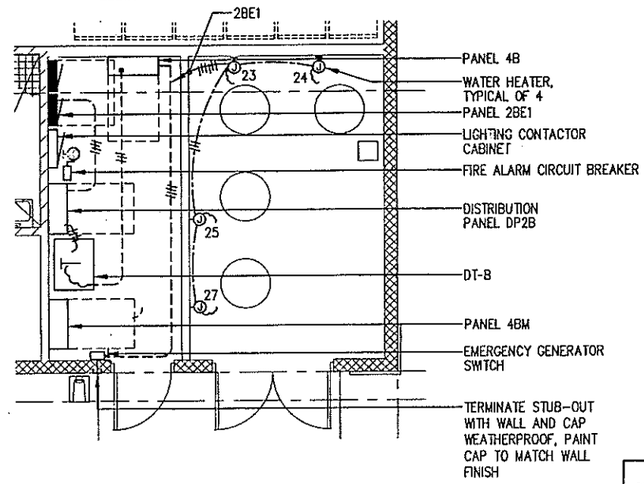
REFERENCE NORTH

WEST — EAST

SOUTH

BILLETS - PARTIAL FIRST FLOOR POWER PLAN

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



ENLARGED ELECTRIC/HEATER ROOM PLAN

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

2' 0 10' 20'

1/4" = 1'-0"

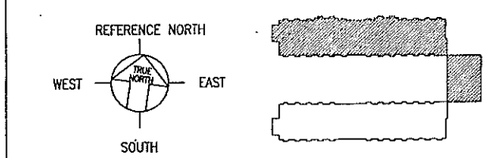
4' 0 5' 10' 15' 20'

1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT-- SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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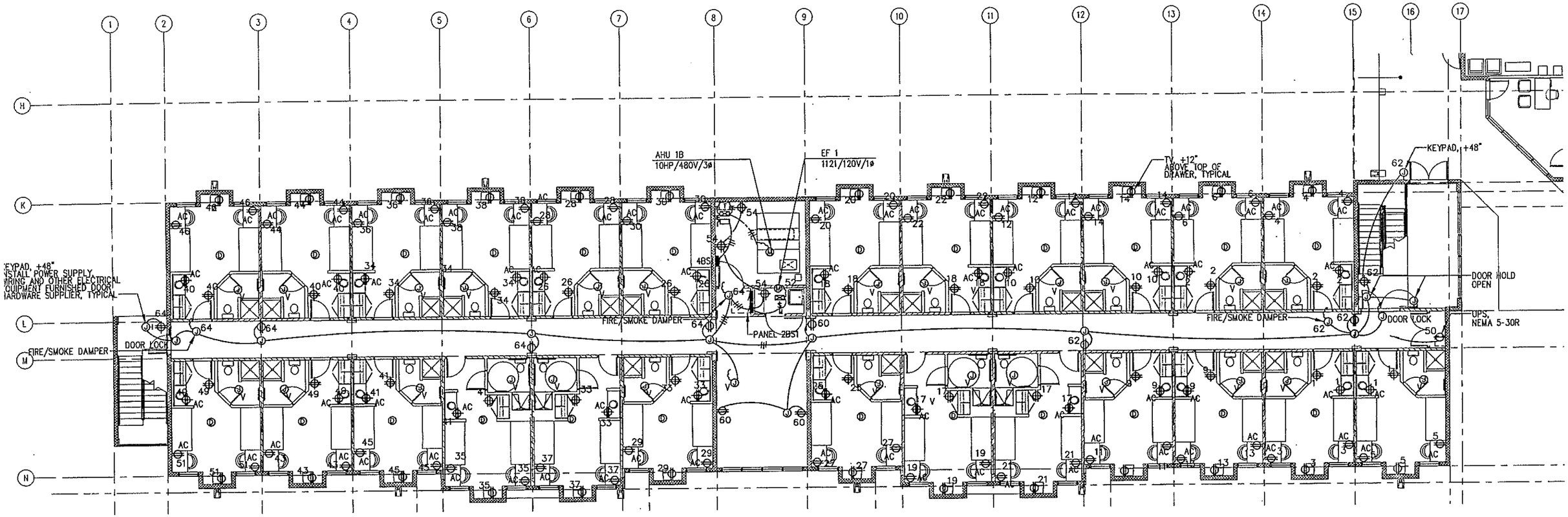
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS - PARTIAL FIRST FLOOR POWER PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: --
ENGINEER: --
APPROVED: HARNG, FAC MGMT OFFICER
APPROVED: HQB, USPFO FOR HAWAII
APPROVED: HANG, CONTRACTING & ENGINEERING OFFICER

DATE: 3-28-00
SCALE: NOTED
DWG # E2.3
SHEET 122 OF 228



REFERENCE NORTH

WEST — TRUE NORTH — EAST

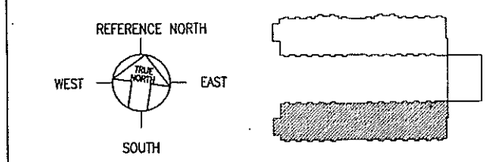
SOUTH

BILLETS - PARTIAL FIRST FLOOR POWER PLAN

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

NOTE: SEE DRAWING NO. E2.1 FOR TYPICAL LIVING UNIT LIGHTING AND POWER PLAN.

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

4' 0 5' 10' 15' 20'

1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT- SCALE REDUCED ACCORDINGLY

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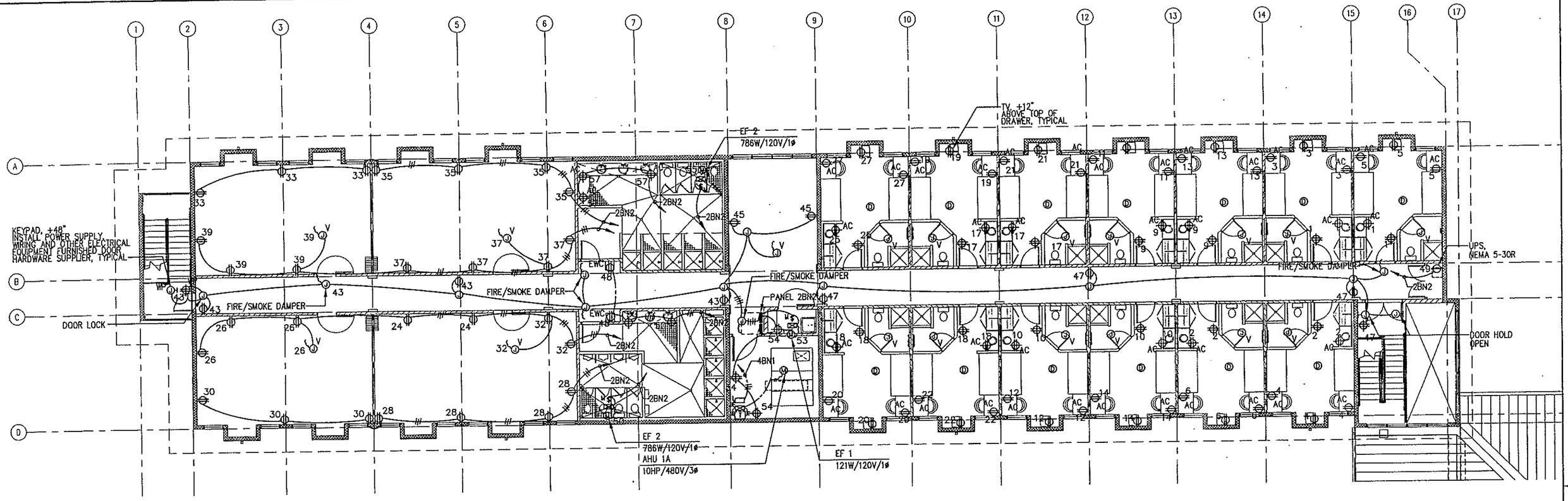
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS - PARTIAL FIRST FLOOR POWER PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: –
ENGINEER: –
APPROVED: HAFING, FAC MGMT OFFICER
APPROVED: NGB, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE: NOTED
DWG # E2.4
SHEET 123 OF 228



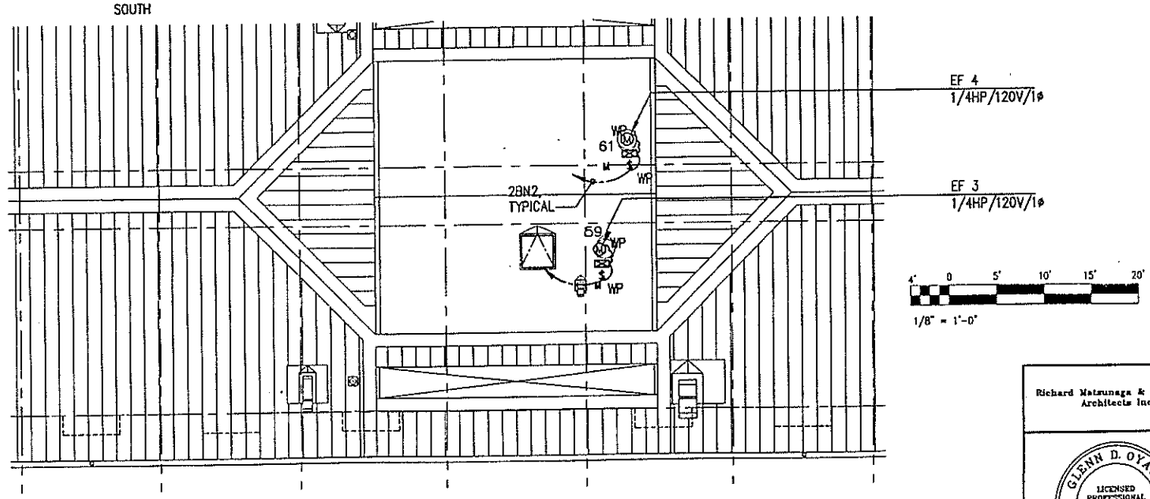
REFERENCE NORTH

WEST — TRUE NORTH — EAST

SOUTH

BILLETS - PARTIAL SECOND FLOOR POWER PLAN

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



REFERENCE NORTH

WEST — TRUE NORTH — EAST

SOUTH

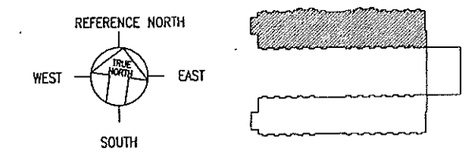
BILLETS - PARTIAL ROOF POWER PLAN

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

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT- SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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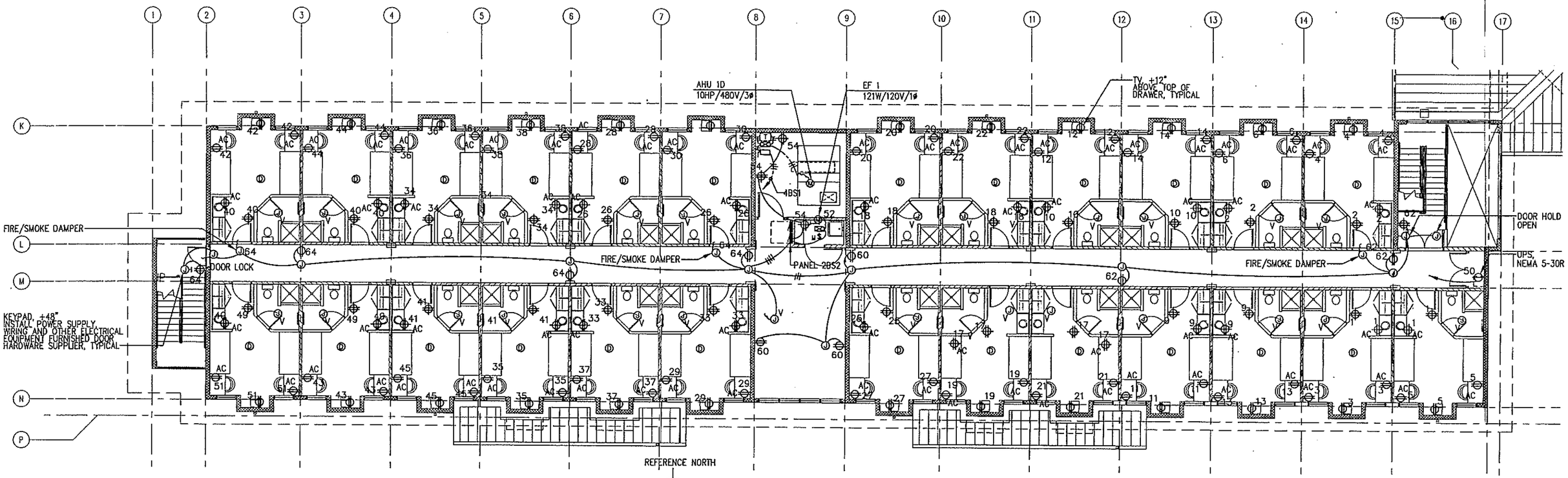
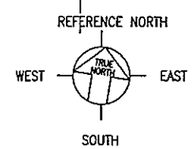
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS - PARTIAL SECOND FLOOR POWER PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: -
ENGINEER: -
APPROVED:
HARING, FAC MGMT OFFICER
APPROVED:
NGB, USPFO FOR HAWAII
APPROVED:
HING, CONTRACTING & ENGINEERING OFFICER

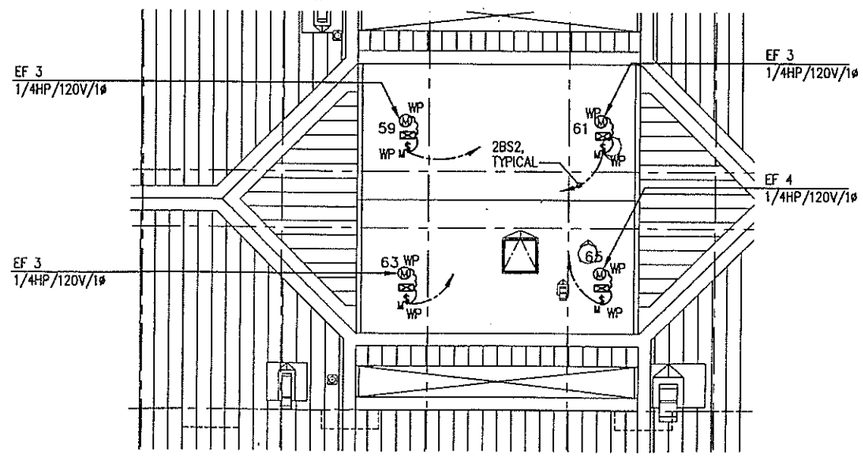
DATE 3-28-00
SCALE: NOTED
DWG # E2.5
SHEET 124 OF 228

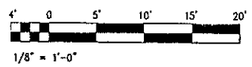


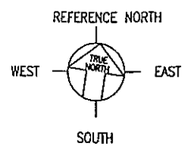


BILLETS - PARTIAL SECOND FLOOR POWER PLAN

SCALE : 1/8" = 1'-0"
NOTE: SEE DRAWING NO. E2.1 FOR TYPICAL LIVING UNIT LIGHTING AND POWER PLAN.







BILLETS - PARTIAL ROOF POWER PLAN

SCALE : 1/8" = 1'-0"
NOTE: ALL WIRING AND EQUIPMENT SHALL BE WEATHERPROOF.

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT-- SCALE REDUCED ACCORDINGLY

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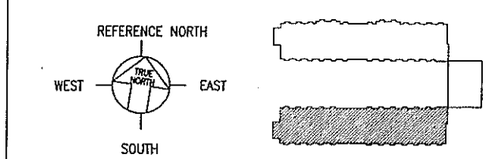
KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

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DESIGNED:	CCA
DRAWN:	GCA
SAFETY:	–
ENGINEER:	–

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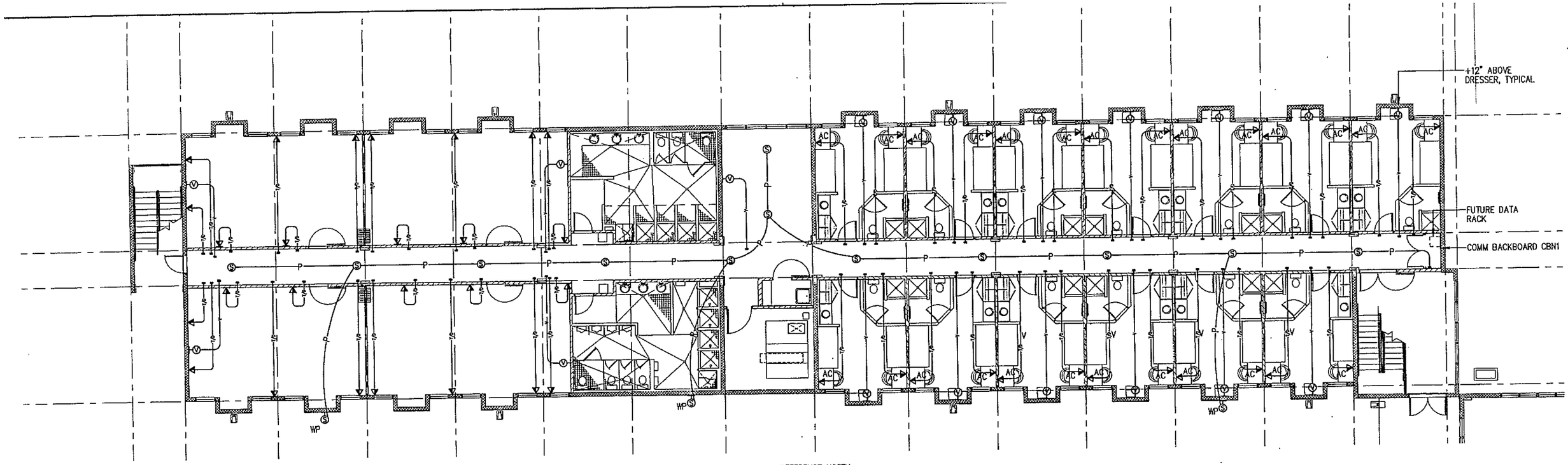
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PARTIAL SECOND FLOOR POWER PLAN

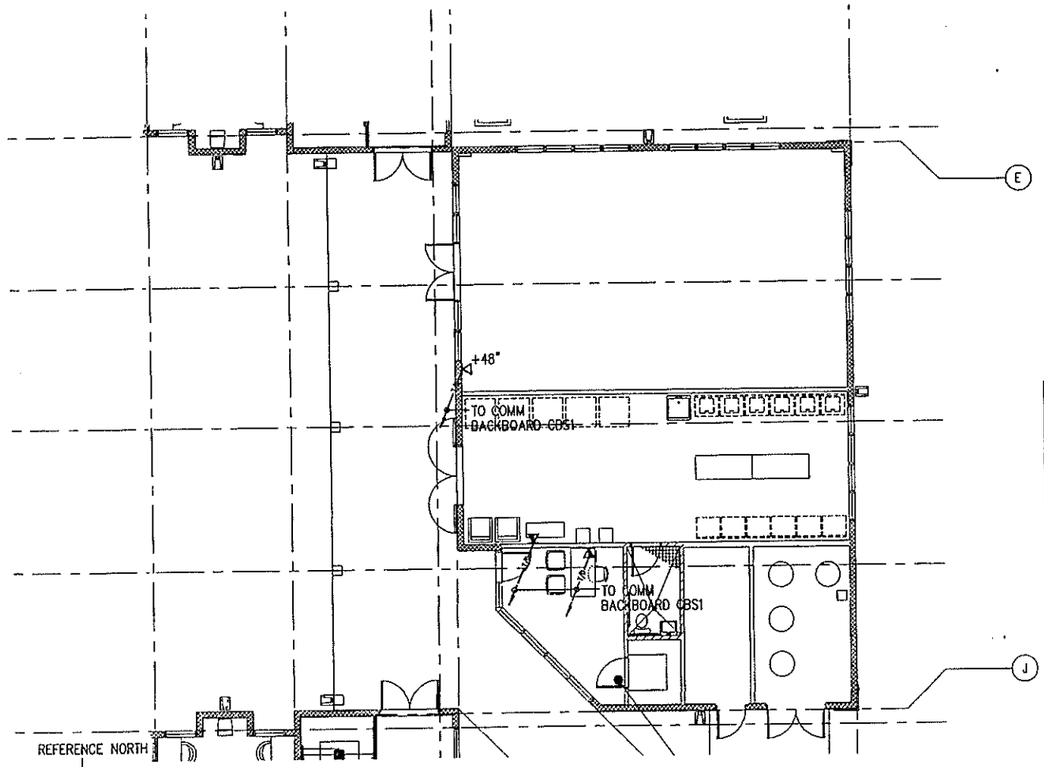
APPROVED: HIARNG, FAC MGMT OFFICER	APPROVED: NGB, USPFO FOR HAWAII	DATE 3-28-00
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER		SCALE: NOTED
		DWG # E2.6
		SHEET 125 of 228



REFERENCE NORTH
WEST — TRUE NORTH — EAST
SOUTH

BILLETS - PARTIAL FIRST FLOOR TEL/DATA/CATV/P.A. PLAN

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



15 spaces

REFERENCE NORTH
WEST — TRUE NORTH — EAST
SOUTH

BILLETS - PARTIAL FIRST FLOOR TEL/DATA/CATV/P.A. PLAN

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

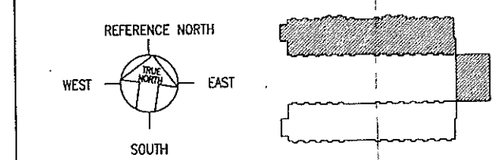
2' 0 10' 20'
.1/4" = 1'-0"

4' 0 5' 10' 15' 20'
1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT— SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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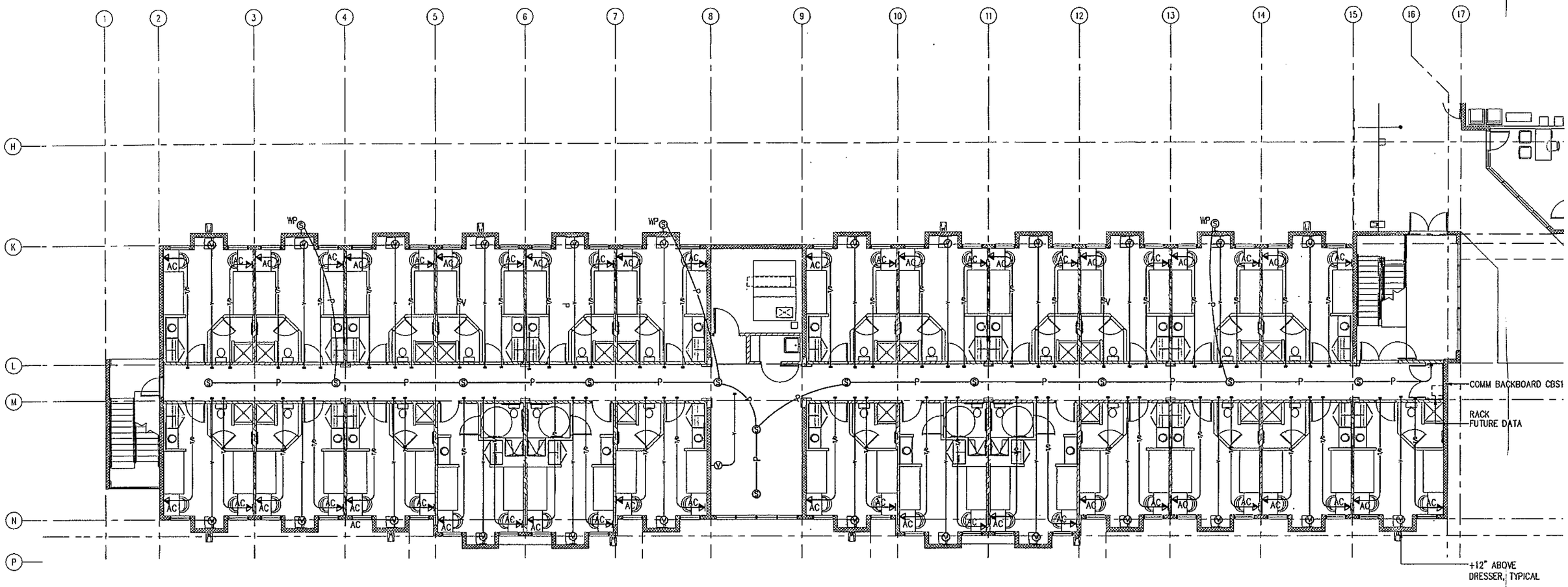
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

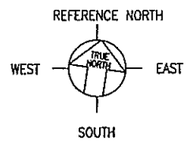
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS - PARTIAL FIRST FLOOR TEL/DATA/CATV/P.A. PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: –
ENGINEER: –
APPROVED: HARNG, FAC MGMT OFFICER
APPROVED: HNG, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE: NOTED
DWG # E2.7
SHEET 126 OF 228

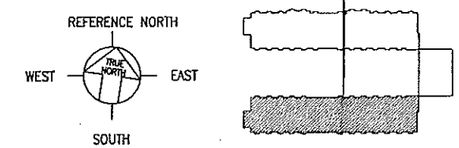




BILLETS - PARTIAL FIRST FLOOR TEL/DATA/CATV/P.A. PLAN

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

KEY PLAN FOR BILLETS



15 spaniers

4' 1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT- SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

Richard Matsunaga & Associates Architects Inc.

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Glenn D. Oyama

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NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

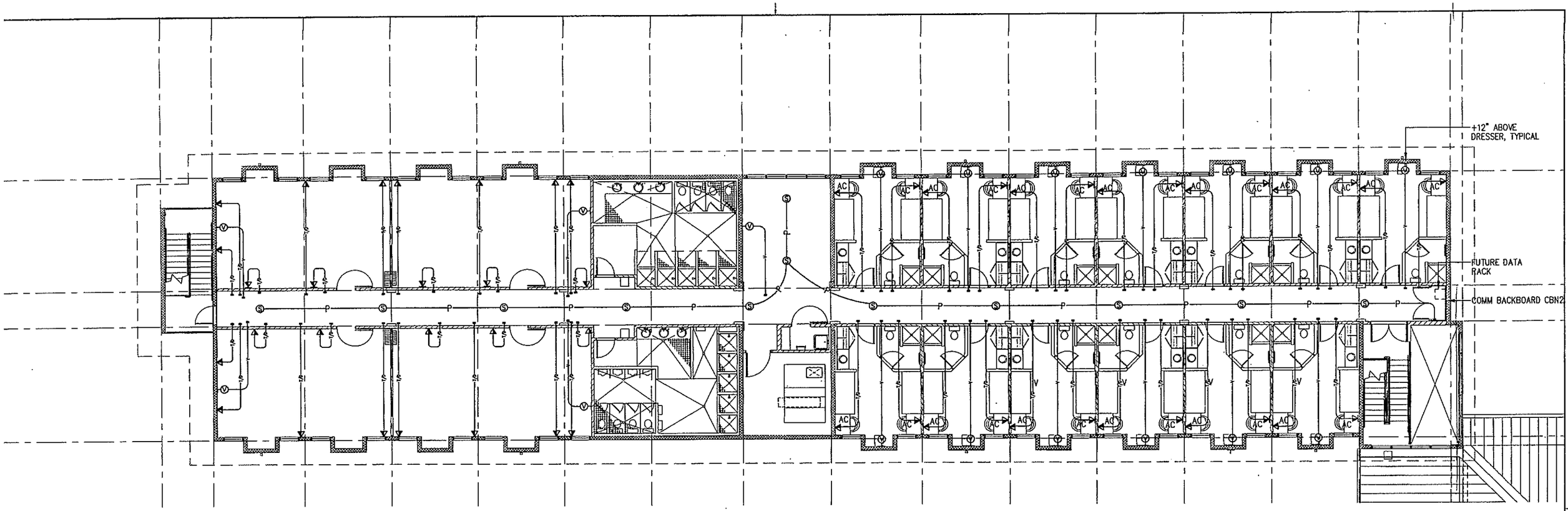
DESIGNED: GCA
DRAWN: GCA
SAFETY: –
ENGINEER: –

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PARTIAL FIRST FLOOR TEL/DATA/CATV/P.A. PLAN

APPROVED: HARING, FAC MGMT OFFICER
APPROVED: HQS, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00.
SCALE NOTED
DWG # E2.8
SHEET 127 OF 228



REFERENCE NORTH
WEST — TRUE NORTH — EAST
SOUTH

BILLETS - PARTIAL SECOND FLOOR TEL/DATA/CATV/P.A. PLAN

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

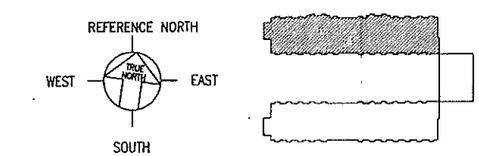
12 speakers

4' 0 5' 10' 15' 20'
1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

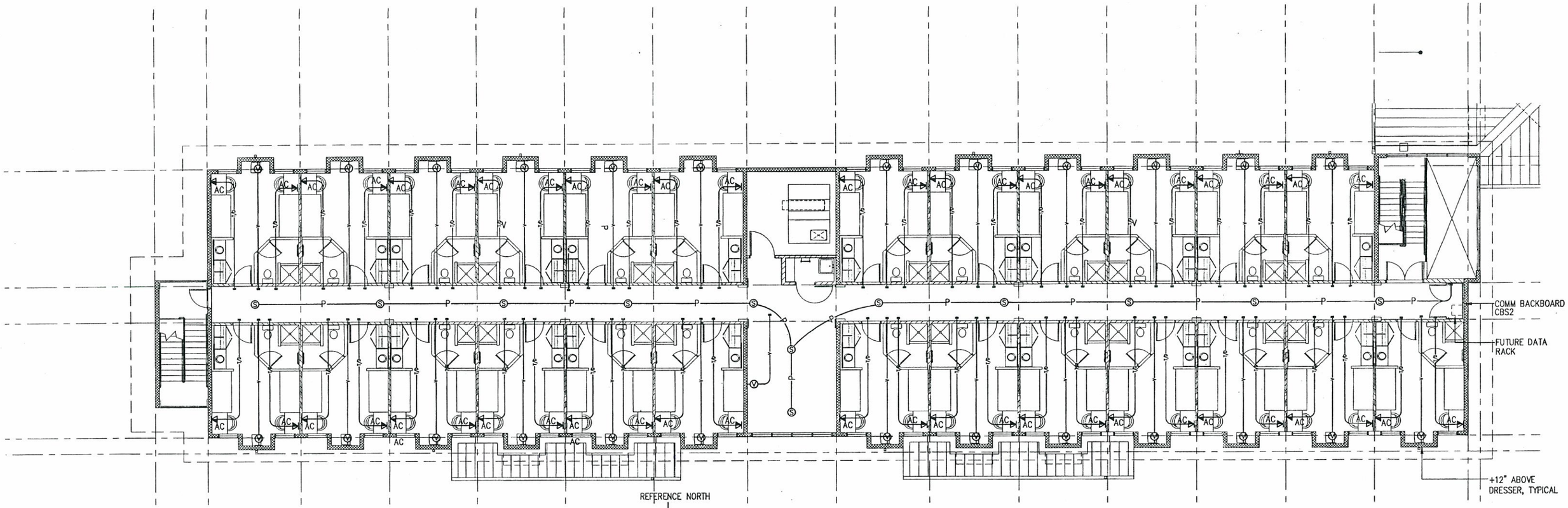
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS -- PARTIAL SECOND FLOOR TEL/DATA/CATV/P.A. PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: --
ENGINEER: --

APPROVED: HANG, FAC MGMT OFFICER
APPROVED: HQD, USPFO FOR HAWAII
APPROVED: HANG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE NOTED
DWG # E2.9
SHEET 128 OF 228



REFERENCE NORTH

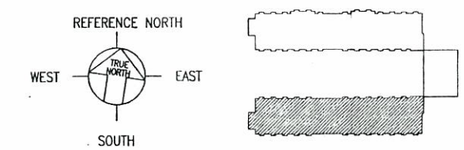
WEST — TRUE NORTH — EAST

SOUTH

BILLETS - PARTIAL SECOND FLOOR TEL/DATA/CATV/P.A. PLAN

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

KEY PLAN FOR BILLETS



0 5' 10' 15' 20'

1/8" = 1'-0"

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

Richard Matsunaga & Associates Architects Inc.

GLENN D. OYAMA LICENSED PROFESSIONAL ENGINEER NO. 4210-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

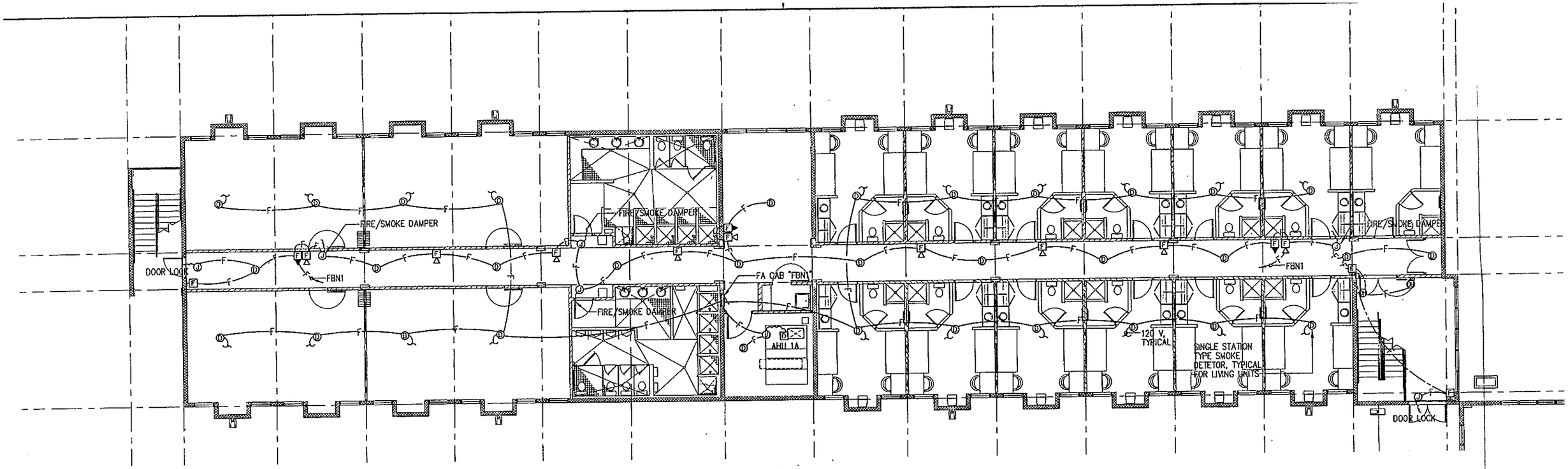
DEPARTMENTS OF THE ARMY AND AIR
NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

298TH REGIONAL TRAININC INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS - PARTIAL SECOND FLOOR TEL/DATA/CATV/P.A. PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: --
ENGINEER: --
APPROVED: HARNG, FAC MGMT OFFICER
APPROVED: NGB, USPFO FOR HAWAII
APPROVED: HNNG, CONTRACTING & ENGINEERING OFFICER

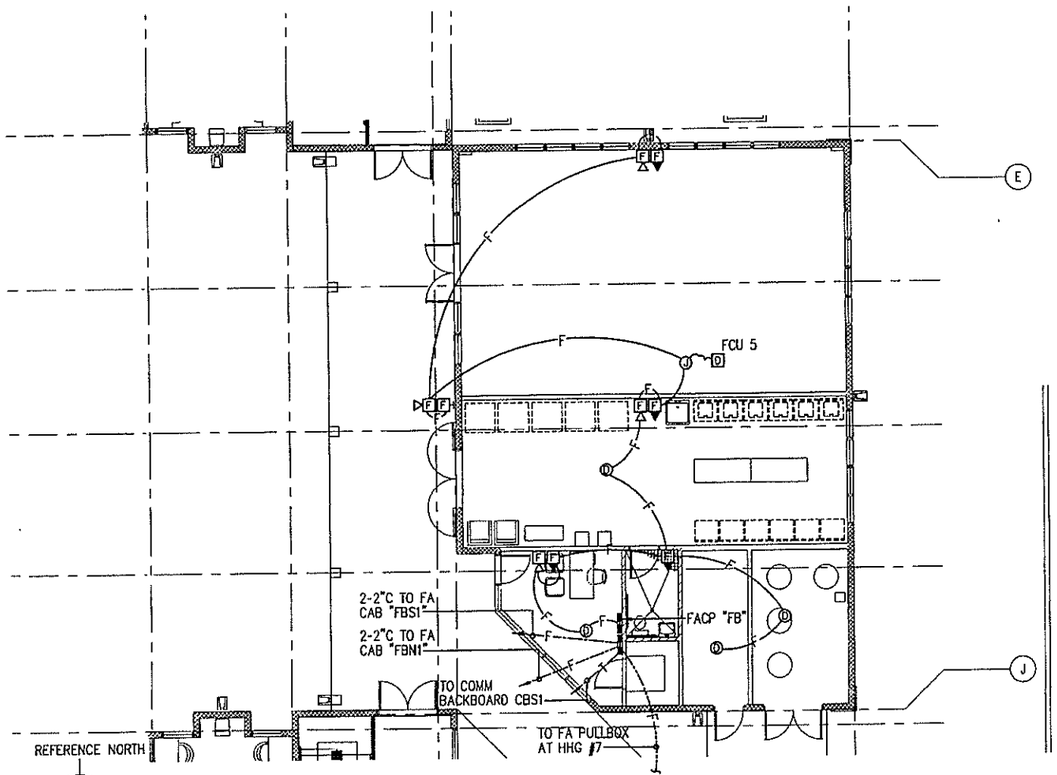
DATE: 3-28-00
SCALE: NOTED
DWG # E2.10
SHEET 129 OF 228



REFERENCE NORTH
WEST EAST
SOUTH

BILLETS - PARTIAL FIRST FLOOR FIRE ALARM PLAN

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

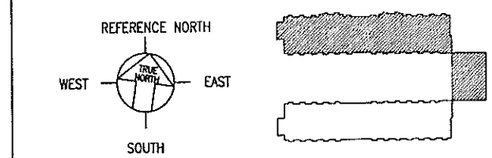


REFERENCE NORTH
WEST EAST
SOUTH

BILLETS - PARTIAL FIRST FLOOR FIRE ALARM PLAN

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

KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

2' 0 10' 20'
1/4" = 1'-0"

4' 0 5' 10' 15' 20'
1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

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Richard Matsunaga & Associates Architects Inc.

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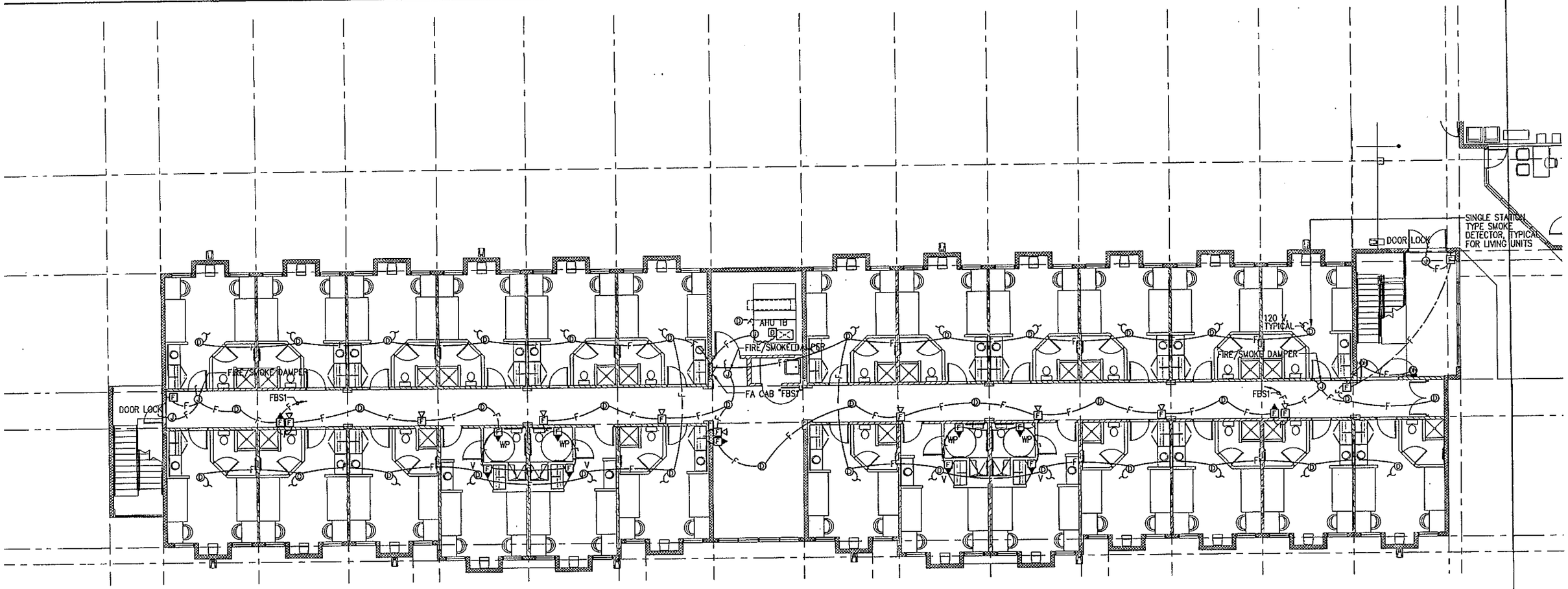
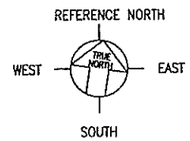
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS - PARTIAL FIRST FLOOR FIRE ALARM PLAN

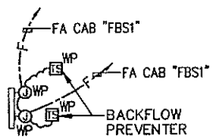
DESIGNED:	GCA
DRAWN:	GCA
SAFETY:	–
ENGINEER:	–
APPROVED: HAANG, FAC MGMT OFFICER	APPROVED: NGB, USPFO FOR HAANG
APPROVED: HANG, CONTRACTING & ENGINEERING OFFICER	
DATE	3-28-00
SCALE:	NOTED
DWG #	E2.11
SHEET	130 OF 228

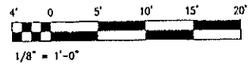




BILLETS - PARTIAL FIRST FLOOR FIRE ALARM PLAN

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





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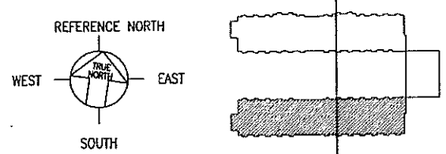
KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

Richard Matsuunaga & Associates Architects Inc.

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Glenn D. Oyama

DEPARTMENTS OF THE ARMY AND AIR
NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

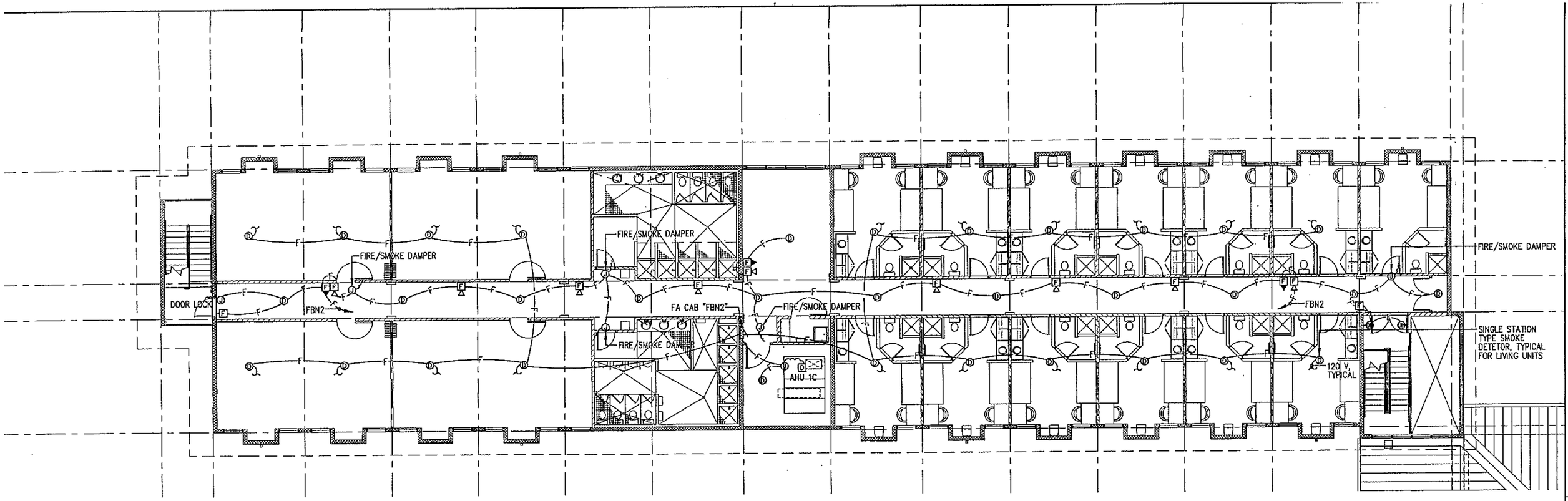
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

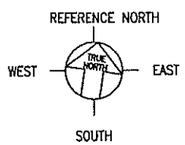
BILLETS - PARTIAL FIRST FLOOR FIRE ALARM PLAN

DESIGNED: GCA
DRAWN: GCA
SAFETY: -
ENGINEER: -

APPROVED: HARNG, FAC MGMT OFFICER
APPROVED: HCD, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

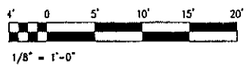
DATE 3-28-00
SCALE: NOTED
DWG # E2.12
SHEET 131 of 228



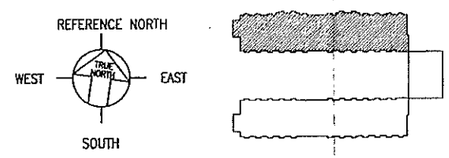


BILLETS - PARTIAL SECOND FLOOR FIRE ALARM PLAN

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



KEY PLAN FOR BILLETS



REVISION NO	DESCRIPTION	DATE	BY	CHK'D

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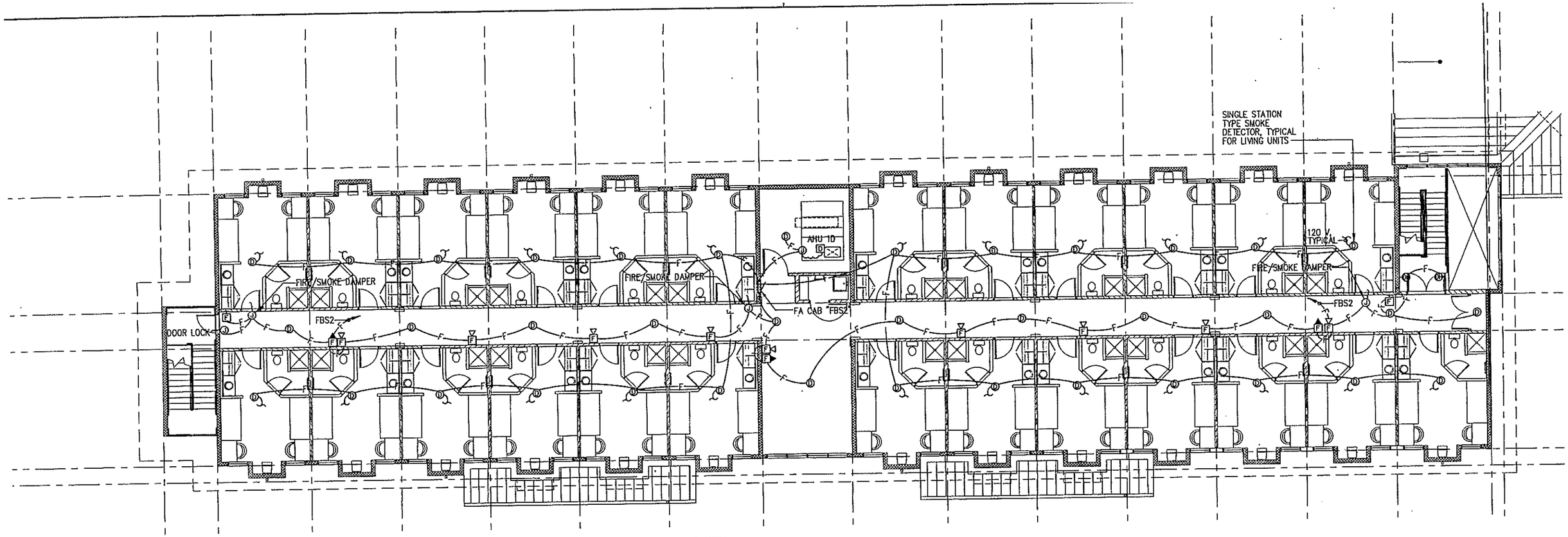
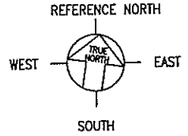
NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PARTIAL SECOND FLOOR FIRE ALARM PLAN

DESIGNED: GCA	
DRAWN: GCA	
SAFETY: –	
ENGINEER: –	
APPROVED: HARNG, FAC MGMT OFFICER	APPROVED: HQB, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER	
DATE	3-28-00
SCALE	NOTED
DWG #	E2.13
SHEET	132 OF 228

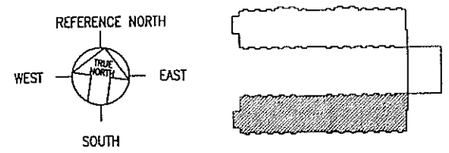




BILLETS - PARTIAL SECOND FLOOR FIRE ALARM PLAN

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

KEY PLAN FOR BILLETS



0 5' 10' 15' 20'

1/8" = 1'-0"

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

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DEPARTMENTS OF THE ARMY AND AIR
NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

DESIGNED: GCA
DRAWN: GCA
SAFETY: –
ENGINEER: –

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PARTIAL SECOND FLOOR FIRE ALARM PLAN

APPROVED: HANG, FAC MGMT OFFICER
APPROVED: NGB, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE NOTED
DWG # E2.14
SHEET 133 OF 228

PANEL "2BE1" 208Y/120 VOLTS, 3 PHASE, 4 WIRE SOLID NEUT
~~TWO-SECTION, PANELS~~ ~~IDENTICAL, EXCEPT~~
~~A MAIN BKR~~ / 225 A LUGS ONLY/TWIN, SURFACE/~~FLUSH/SEMI-FLUSH~~
~~LOAD-CENTER~~/INDUSTRIAL BOLTED (~~OTHER SPECIAL FEATURES~~)

CIRCUIT NO.	BREAKERS POLE	BREAKERS AMPS	USE: S-SPARE, L-LIGHTS, R-RECEPTACLES, PFB-PROV. FUTURE BKRS	KVA ON BUSSES A	B	C	WIRE SIZE
1	1	20	R – WASHER	1.0			12
2	1	20	R – WASHER	1.0			12
3	1	20	R – WASHER		1.0		12
4	1	20	R – WASHER		1.0		12
5	1	20	R – WASHER			1.0	12
6	1	20	R – WASHER			1.0	12
7	1	20	R – VENDING MACHINES	1.0			12
8	1	20	R – VENDING MACHINES	1.0			12
9	1	20	R – VENDING MACHINES		1.0		12
10	1	20	R – VENDING MACHINES		1.0		12
11	1	20	R – VENDING MACHINES			1.0	12
12	1	20	R – EXTERIOR			0.6	12
13	1	20	R – PHYSICAL FITNESS	1.2			12
14	1	20	R – LAUNDRY	0.4			12
15	1	20	R – PHYSICAL FITNESS		1.2		12
16	1	20	R – EWC		1.0		12
17	1	20	R – PHYSICAL FITNESS			1.2	12
18	1	20	R – OFFICE			0.4	12
19	1	20	EF 8	1.2			12
20	1	20	R – TOILET/STORAGE	0.6			12
21	1	20	EF 6		0.7		12
22	1	20	R – HEATER ROOM		0.4		12
23	1	20	WATER HEATER			1.0	12
24	1	20	WATER HEATER			1.0	12
25	1	20	WATER HEATER	1.0			12
26	1	20	OAF 1	0.6			12
27	1	20	WATER HEATER		1.0		12
28	1	30	S		1.0		12
29	1	20	S			1.0	12
30	1	20	S			1.0	12
31	2	30	R – DRYER	2.5			10
32	2	30	R – DRYER	2.5			10
33	–	–	R – DRYER		2.5		10
34	–	–	R – DRYER		2.5		10
35	2	30	R – DRYER			2.5	10
36	2	30	R – DRYER			2.5	10
37	–	–	R – DRYER	2.5			10
38	–	–	R – DRYER	2.5			10
39	2	30	R – DRYER		2.5		10
40	2	30	R – DRYER		2.5		10
41	–	–	R – DRYER			2.5	10
42	–	–	R – DRYER			2.5	10
43	2	20	FCU 1	0.8			12
44	2	20	FCU 2	0.1			12
45	–	–	FCU 1		0.8		12
46	–	–	FCU 2		0.1		12
47	2	40	ACCU 4			3.2	8
48	2	20	ACCU 5			0.9	10
49	–	–	ACCU 4	3.2			8
50	–	–	ACCU 5	0.9			12
51	2	30	CP 1		1.9		10
52	2	20	PFB		–		–
53	–	–	CP 1			1.9	10
54	–	–	PFB			–	–
55	1	20	S	1.0			–
56	1	20	S	1.0			–
57	1	20	S		1.0		–
58	1	20	S		1.0		–
59	1	20	S			1.0	–
60	1	20	S			1.0	–
61	1	20	L – PHYSCIAL FITNESS	0.6			12
62	1	20	L – LAUNDRY ROOM	0.6			12
63	1	20	L – PHYSICAL FITNESS		0.6		12
64	1	20	L – LAUNDRY ROOM		0.6		12
65	1	20	L – PHYSICAL FITNESS			0.6	12
66	1	20	L – OFFICE/ELECTRIC ROOM/HEATER ROOM			0.6	12
67	1	20	L – EXTERIOR (NL)	1.0			10
68	1	20	S	1.0			–
69	1	20	L – EXTERIOR (CL)		1.0		10
70	1	20	S		1.0		–
71	1	20	S			1.0	–
72	1	20	S			1.0	–
73	1	20	PFB	–			–
74	1	20	PFB	–			–
75	1	20	PFB		–		–
76	1	20	PFB		–		–
77	1	20	PFB			–	–
78	1	20	PFB			–	–
79	1	20	PFB	–			–
80	1	20	PFB	–			–
81	1	20	PFB		–		–
82	1	20	PFB		–		–
83	1	20	PFB			–	–
84	1	20	PFB			–	–
				29.2	27.3	30.4	TOTALS

ALLOWED KVA 86.9
DEMAND FACTOR USED 0.8
DEMAND KVA 53.9

10,000 AIC MIN

PANEL "2BN1" 208Y/120 VOLTS, 3 PHASE, 4 WIRE SOLID NEUT
~~TWO-SECTION, PANELS~~ ~~IDENTICAL, EXCEPT~~
225 A MAIN BKR / ~~A LUGS ONLY/TWIN, SURFACE/FLUSH/SEMI-FLUSH~~
~~LOAD-CENTER~~/INDUSTRIAL BOLTED (~~OTHER SPECIAL FEATURES~~)

CIRCUIT NO.	BREAKERS POLE	BREAKERS AMPS	USE: S-SPARE, L-LIGHTS, R-RECEPTACLES, PFB-PROV. FUTURE BKRS	KVA ON BUSSES A	B	C	WIRE SIZE
1	1	20	R/VAV BOX – UNITS 165, 166	1.0			12
2	1	20	R/VAV BOX – UNITS 145, 146	1.0			12
3	1	20	R – UNIT 165		1.2		12
4	1	20	R – UNIT 145		1.2		12
5	1	20	R – UNIT 166			1.2	12
6	1	20	R – UNIT 146			1.2	12
7	1	20	L – UNITS 165, 166	1.0			12
8	1	20	L – UNITS 135, 146	1.0			12
9	1	20	R/VAV BOX – UNITS 163, 164		1.0		12
10	1	20	R/VAV BOX – UNITS 147, 148		1.0		12
11	1	20	R – UNIT 163			1.2	12
12	1	20	R – UNIT 148			1.2	12
13	1	20	R – UNIT 164	1.2			12
14	1	20	R – UNIT 147	1.2			12
15	1	20	L – UNITS 163, 164		1.0		12
16	1	20	L – UNITS 147, 148		1.0		12
17	1	20	R/VAV BOX – UNITS 161, 162			1.0	12
18	1	20	R/VAV BOX – UNITS 149, 150			1.0	12
19	1	20	R – UNIT 161	1.2			12
20	1	20	R – UNIT 150	1.2			12
21	1	20	R – UNIT 162		1.2		12
22	1	20	R – UNIT 149		1.2		12
23	1	20	L – UNITS 161, 162			1.0	12
24	1	20	L – UNITS 147, 148			1.0	12
25	1	20	R/VAV BOX – UNIT 160	1.2			12
26	1	20	R/VAV BOX – UNIT 154	1.2			12
27	1	20	R – UNIT 160		1.0		12
28	1	30	R – UNIT 154		1.0		12
29	1	20	S			1.0	–
30	1	20	R – UNIT 154			1.2	12
31	1	20	L – UNIT 160	0.6			12
32	1	20	R/VAV BOX – UNIT 154	1.0			12
33	1	20	R – UNIT 157		1.0		12
34	1	20	L – UNIT 154		1.0		12
35	1	20	R – UNIT 157			1.0	12
36	1	20	L – UNIT 154			1.0	12
37	1	20	R/VAV BOX – UNIT 157	1.0			12
38	1	20	S	1.0			–
39	1	20	R/VAV BOX – UNIT 157		1.0		12
40	1	20	L – UNIT 157		1.0		12
41	1	20	S			1.0	–
42	1	20	L – UNIT 157			1.0	12
43	1	20	R – CORRIDOR	0.8			12
44	1	20	L – CORRIDOR/COMM RM	1.0			10
45	1	20	R – LOUNGE		0.8		12
46	1	20	L – EXTERIOR (NL)		0.8		10
47	1	20	R – CORRIDOR			1.4	12
48	1	20	R – EWC			1.4	12
49	1	30	R – UPS	1.9			10
50	1	20	L – MEN'S LATRINE/EF 2	1.4			12
51	1	20	R – WOMEN'S LATRINE		1.0		12
52	1	20	L – MECHANICAL, JANITOR ROOM/EF 1		1.4		12
53	1	20	R – ACCU ENCLOSURE			1.0	10
54	1	20	R – MECHANICAL/JANITOR ROOM			1.0	–
55	1	20	L – WOMEN'S LATRINE/EF 2	1.0			12
56	1	20	S	1.0			–
57	1	20	L – LOUNGE		1.0		12
58	1	20	S		1.0		12
59	1	20	S			1.0	–
60	1	20	S			1.0	–
61	1	20	S	1.0			–
62	1	20	S	1.0			–
63	1	20	S		1.0		–
64	1	20	S		1.0		–
65	1	20	S			1.0	–
66	1	20	S			1.0	–
67	1	20	PFB	–			–
68	1	20	PFB	–			–
69	1	20	PFB		–		–
70	1	20	PFB		–		–
71	1	20	PFB			–	–
72	1	20	PFB			–	–
73	1	20	PFB	–			–
74	1	20	PFB	–			–
75	1	20	PFB		–		–
76	1	20	PFB		–		–
77	1	20	PFB			–	–
78	1	20	PFB			–	–
79	1	20	PFB	–			–
80	1	20	PFB	–			–
81	1	20	PFB		–		–
82	1	20	PFB		–		–
83	1	20	PFB			–	–
84	1	20	PFB			–	–
				23.9	22.8	23.8	TOTALS

ALLOWED KVA 70.6
DEMAND FACTOR USED 0.8
DEMAND KVA 56.5

10,000 AIC MIN

PANEL "2BS1" 208Y/120 VOLTS, 3 PHASE, 4 WIRE SOLID NEUT
~~TWO-SECTION, PANELS~~ ~~IDENTICAL, EXCEPT~~
225 A MAIN BKR / ~~A LUGS ONLY/TWIN, SURFACE/FLUSH/SEMI-FLUSH~~
~~LOAD-CENTER~~/INDUSTRIAL BOLTED (~~OTHER SPECIAL FEATURES~~)

CIRCUIT NO.	BREAKERS POLE	BREAKERS AMPS	USE: S-SPARE, L-LIGHTS, R-RECEPTACLES, PFB-PROV. FUTURE BKRS	KVA ON BUSSES A	B	C	WIRE SIZE
1	1	20	R/VAV BOX – UNITS 101, 102	1.0			12
2	1	20	R/VAV BOX – UNITS 129, 130	1.0			12
3	1	20	R – UNIT 102		1.2		12
4	1	20	R – UNIT 130		1.2		12
5	1	20	R – UNIT 101			1.2	12
6	1	20	R – UNIT 129			1.2	12
7	1	20	L – UNITS 101, 102	1.0			12
8	1	20	L – UNITS 129, 130	1.0			12
9	1	20	R/VAV BOX – UNITS 103, 104		1.0		12
10	1	20	R/VAV BOX – UNITS 127, 128		1.0		12
11	1	20	R – UNIT 104			1.2	12
12	1	20	R – UNIT 127			1.2	12
13	1	20	R – UNIT 103	1.2			12
14	1	20	R – UNIT 128	1.2			12
15	1	20	L – UNITS 103, 104		1.0		12
16	1	20	L – UNITS 127, 128		1.0		12
17	1	20	R/VAV BOX – UNITS 105, 106			1.0	12
18	1	20	R/VAV BOX – UNITS 125, 126			1.0	12
19	1	20	R – UNIT 106	1.2			12
20	1	20	R – UNIT 125	1.2			12
21	1	20	R – UNIT 105		1.2		12
22	1	20	R – UNIT 126		1.2		12
23	1	20	L – UNITS 105, 106			1.0	12
24	1	20	S			1.0	–
25	1	20	R/VAV BOX – UNIT 107	1.0			12
26	1	20	R/VAV BOX – UNITS 121, 122	1.0			12
27	1	20	R – UNIT 107		1.2		12
28	1	30	R – UNIT 121		1.2		12
29	1	20	R – UNIT 109			1.2	12
30	1	20	R – UNIT 122			1.2	12
31	1	20	L – UNIT 107	0.6			12
32	1	20	L – UNITS 121, 122	1.0			12
33	1	20	L – UNITS 109, 110		1.0		12
34	1	20	R/VAV BOX – UNITS 119, 120		1.0		12
35	1	20	R – UNIT 111			1.2	12
36	1	20	R – UNIT 119			1.2	12
37	1	20	R – UNIT 107	1.2			12
38	1	20	R – UNIT 120	1.2			12
39	1	20	L – UNITS 109, 110		1.0		12
40	1	20	L – UNITS 119, 120		1.0		12
41	1	20	R/VAV BOX – UNITS 111, 112			1.0	12
42	1	20	R/VAV BOX – UNITS 117, 118			1.0	12
43	1	20	R – UNIT 113	1.2			12
44	1	20	R – UNIT 118	1.2			12
45	1	20	R – UNIT 112		1.2		12
46	1	20	R – UNIT 117		1.2		12
47	1	20	L – UNITS 121, 122			1.0	12
48	1	20	L – UNITS 117, 118			1.0	12
49	1	20	R/VAV BOX – UNITS 113, 114	1.0			12
50	1	20	R – UPS	1.9			10
51	1	20	R – UNIT 114		1.0		12
52	1	20	L – MECHANICAL, JANITOR ROOM/EF 1		1.0		12
53	1	20	R – ACCU ENCLOSURE			1.0	10
54	1	20	R – MECHANICAL/JANITOR ROOM			1.0	12
55	1	20	L – UNITS 113, 114	1.0			12
56	1	20	L – CORRIDOR/COMM RM	1.0			10
57	1	20	L – LOUNGE		1.0		12
58	1	20	L – EXTERIOR (NL)		1.0		10
59	1	20	R – IRRIGATION CONTROLLER			1.0	10
60	1	20	R – LOUNGE			1.0	12
61	1	20	R – IRRIGATION CONTROLLER	1.0			10
62	1	20	R – CORRIDOR	1.0			12
63	1	20	S		1.0		–
64	1	20	R – CORRIDOR		1.0		12
65	1	20	S			1.0	–
66	1	20	S			1.0	–
67	1	20	S	1.0			–
68	1	20	S	1.0			–
69	1	20	S		1.0		–
70	1	20	S		1.0		–
71	1	20	S			1.0	–
72	1	20	S			1.0	–
73	1	20	PFB	–			–
74	1	20	PFB	–			–
75	1	20	PFB		–		–
76	1	20	PFB		–		–
77	1	20	PFB			–	–
78	1	20	PFB			–	–
79	1	20	PFB	–			–
80	1	20	PFB	–			–
81	1	20	PFB		–		–
82	1	20	PFB		–		–
83	1	20	PFB			–	–
84	1	20	PFB			–	–
				26.1	25.6	25.6	TOTALS

ALLOWED KVA 77.3
DEMAND FACTOR USED 0.8
DEMAND KVA 61.8

10,000 AIC MIN

PANEL "4BS1" 480Y/277 VOLTS, 3 PHASE, 4 WIRE SOLID NEUT
~~TWO-SECTION, PANELS~~ "4BN1" IDENTICAL, EXCEPT
225 A MAIN BKR / ~~A LUGS ONLY/TWIN~~, SURFACE/~~FLUSH/SEMI-FLUSH~~
~~LOAD-CENTER~~/INDUSTRIAL BOLTED (OTHER SPECIAL FEATURES)

CIRCUIT NO.	BREAKERS POLE	BREAKERS AMPS	USE: S-SPARE, L-LIGHTS, R-RECEPTACLES, PFB-PROV. FUTURE BKRS	KVA ON BUSSES A	B	C	WIRE SIZE
1	3	30	AHU 1A / AHU 1B	3.9			10
2	3	30	AHU 1C / AHU 1D	3.9			10
3	–	–	AHU 1A / AHU 1B		3.9		10
4	–	–	AHU 1C / AHU 1D		3.9		10
5	–	–	AHU 1A / AHU 1B			3.9	10
6	–	–	AHU 1C / AHU 1D			3.9	10
7	3	125	ACCU 1 / ACCU 1	14.0			1
8	3	125	ACCU 1 / ACCU 1	14.0			1
9	–	–	ACCU 1 / ACCU 1		14.0		1
10	–	–	ACCU 1 / ACCU 1		14.0		1
11	–	–	ACCU 1 / ACCU 1			14.0	1
12	–	–	ACCU 1 / ACCU 1			14.0	1
13	1	20	PFB	–			–
14	1	20	PFB	–			–
15	1	20	PFB		–		–
16	1	20	PFB		–		–
17	1	20	PFB			–	–
18	1	20	PFB			–	–
19	1	20	PFB	–			–
20	1	20	PFB	–			–
21	1	20	PFB		–		–
22	1	20	PFB		–		–
23	1	20	PFB			–	–
24	1	20	PFB			–	–
25	1	20	PFB	–			–
26	1	20	PFB	–			–
27	1	20	PFB		–		–
28	1	20	PFB		–		–
29	1	20	PFB			–	–
30	1	20	PFB			–	–
31	1	20	PFB	–			–
32	1	20	PFB	–			–
33	1	20	PFB		–		–
34	1	20	PFB		–		–
35	1	20	PFB			–	–
36	1	20	PFB			–	–
37	1	20	PFB	–			–
38	1	20	PFB	–			–
39	1	20	PFB		–		–
40	1	20	PFB		–		–
41	1	20	PFB			–	–
42	1	20	PFB			–	–
				37.8	37.8	37.8	TOTALS

ALLOWED KVA 113.4
DEMAND FACTOR USED 0.5
DEMAND KVA 56.7

14,000 AIC MIN

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

Richard Matsunaga & Associates Architects Inc.

GLENN D. OYAMA LICENSED PROFESSIONAL ENGINEER NO. 4210-E HAWAII, U.S.A.

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DEPARTMENTS OF THE ARMY AND AIR
NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PANEL SCHEDULES

DRAWN: GCA
SAFETY: –
ENGINEER: –
APPROVED: HANG, FAC MGMT OFFICER
APPROVED: HQS, USPFO FOR HANG
APPROVED: HANG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE NONE
DWG # E2.15
SHEET 134 of 228

PANEL "2BN2" 208Y/120 VOLTS, 3 PHASE, 4 WIRE SOLID NEUT
~~TWO-SECTION, PANELS: IDENTICAL, EXCEPT~~
225 A MAIN BKR / ~~A LUGS-ONLY/TWIN, SURFACE/FLUSH/SEMI-FLUSH~~
~~LOAD-CENTER~~/INDUSTRIAL BOLTED ~~(OTHER-SPECIAL-FEATURES:)~~

CIRCUIT NO.	BREAKERS POLE	BREAKERS AMPS	USE: S-SPARE, L-LIGHTS, R-RECEPTACLES, PFB-PROV. FUTURE BKRS	KVA ON BUSSES A	B	C	WIRE SIZE
1	1	20	R/VAV BOX – UNITS 250, 251	1.0			12
2	1	20	R/VAV BOX – UNITS 231, 232	1.0			12
3	1	20	R – UNIT 250		1.2		12
4	1	20	R – UNIT 231		1.2		12
5	1	20	R – UNIT 251			1.2	12
6	1	20	R – UNIT 232			1.2	12
7	1	20	L – UNITS 250, 251	1.0			12
8	1	20	L – UNITS 231, 232	1.0			12
9	1	20	R/VAV BOX – UNITS 248, 249		1.0		12
10	1	20	R/VAV BOX – UNITS 233, 234		1.0		12
11	1	20	R – UNIT 248			1.2	12
12	1	20	R – UNIT 234			1.2	12
13	1	20	R – UNIT 249	1.2			12
14	1	20	R – UNIT 233	1.2			12
15	1	20	L – UNITS 248, 249		1.0		12
16	1	20	L – UNITS 233, 234		1.0		12
17	1	20	R/VAV BOX – UNITS 246, 247			1.0	12
18	1	20	R/VAV BOX – UNITS 235, 236			1.0	12
19	1	20	R – UNIT 246	1.2			12
20	1	20	R – UNIT 236	1.2			12
21	1	20	R – UNIT 247		1.2		12
22	1	20	R – UNIT 235		1.2		12
23	1	20	L – UNITS 246, 247			1.0	12
24	1	20	L – UNITS 235, 236			1.0	12
25	1	20	R/VAV BOX – UNIT 245	1.2			12
26	1	20	R/VAV BOX – UNIT 240	1.2			12
27	1	20	R – UNIT 245		1.0		12
28	1	30	R – UNIT 240		1.0		12
29	1	20	S			1.0	–
30	1	20	R – UNIT 240			1.2	12
31	1	20	L – UNIT 245	0.5			12
32	1	20	R/VAV BOX – UNIT 240	1.0			12
33	1	20	R – UNIT 242		1.0		12
34	1	20	L – UNIT 240		1.0		12
35	1	20	R – UNIT 242			1.0	12
36	1	20	L – UNIT 240			1.0	12
37	1	20	R/VAV BOX – UNIT 242	1.0			12
38	1	20	S	1.0			–
39	1	20	R/VAV BOX – UNIT 242		1.0		12
40	1	20	L – UNIT 242		1.0		12
41	1	20	S			1.0	–
42	1	20	L – UNIT 242			1.0	12
43	1	20	R – CORRIDOR	0.8			12
44	1	20	L – CORRIDOR/COMM RM	1.0			10
45	1	20	R – LOUNGE		0.8		12
46	1	20	L – EXTERIOR (NL)		0.8		10
47	1	20	R – CORRIDOR			1.4	12
48	1	20	R – EWC			1.4	12
49	1	30	R – UPS	1.9			10
50	1	20	L – MEN'S LATRINE/EF 2	1.4			12
51	1	20	S		1.0		12
52	1	20	L – MECHANICAL, JANITOR ROOM/EF 1		1.4		12
53	1	20	S			1.0	–
54	1	20	R – MECHANICAL/JANITOR ROOM			1.0	–
55	1	20	L – WOMEN'S LATRINE/EF 2	1.0			12
56	1	20	S	1.0			–
57	1	20	R – WOMEN'S LATRINE		1.0		12
58	1	20	S		1.0		12
59	1	20	EF 3			1.0	12
60	1	20	S			1.0	–
61	1	20	EF 4	1.0			12
62	1	20	S	1.0			–
63	1	20	S		1.0		–
64	1	20	S		1.0		–
65	1	20	S			1.0	–
66	1	20	S			1.0	–
67	1	20	PFB	–			–
68	1	20	PFB	–			–
69	1	20	PFB		–		–
70	1	20	PFB		–		–
71	1	20	PFB			–	–
72	1	20	PFB			–	–
73	1	20	PFB	–			–
74	1	20	PFB	–			–
75	1	20	PFB		–		–
76	1	20	PFB		–		–
77	1	20	PFB			–	–
78	1	20	PFB			–	–
79	1	20	PFB	–			–
80	1	20	PFB	–			–
81	1	20	PFB		–		–
82	1	20	PFB		–		–
83	1	20	PFB			–	–
84	1	20	PFB			–	–
				23.8	22.8	23.8	TOTALS

ALLOWED KVA 70.5
DEMAND FACTOR USED 0.8
DEMAND KVA 56.4

10,000 AIC MIN

PANEL "2BS2" 208Y/120 VOLTS, 3 PHASE, 4 WIRE SOLID NEUT
~~TWO-SECTION, PANELS: IDENTICAL, EXCEPT~~
225 A MAIN BKR / ~~A LUGS-ONLY/TWIN, SURFACE/FLUSH/SEMI-FLUSH~~
~~LOAD-CENTER~~/INDUSTRIAL BOLTED ~~(OTHER-SPECIAL-FEATURES:)~~

CIRCUIT NO.	BREAKERS POLE	BREAKERS AMPS	USE: S-SPARE, L-LIGHTS, R-RECEPTACLES, PFB-PROV. FUTURE BKRS	KVA ON BUSSES A	B	C	WIRE SIZE
1	1	20	R/VAV BOX – UNITS 201, 202	1.0			12
2	1	20	R/VAV BOX – UNITS 228, 229	1.0			12
3	1	20	R – UNIT 202		1.2		12
4	1	20	R – UNIT 229		1.2		12
5	1	20	R – UNIT 201			1.2	12
6	1	20	R – UNIT 228			1.2	12
7	1	20	L – UNITS 201, 202	1.0			12
8	1	20	L – UNITS 228, 229	1.0			12
9	1	20	R/VAV BOX – UNITS 203, 204		1.0		12
10	1	20	R/VAV BOX – UNITS 226, 227		1.0		12
11	1	20	R – UNIT 204			1.2	12
12	1	20	R – UNIT 227			1.2	12
13	1	20	R – UNIT 203	1.2			12
14	1	20	R – UNIT 226	1.2			12
15	1	20	L – UNITS 203, 204		1.0		12
16	1	20	L – UNITS 226, 227		1.0		12
17	1	20	R/VAV BOX – UNITS 205, 206			1.0	12
18	1	20	R/VAV BOX – UNITS 224, 225			1.0	12
19	1	20	R – UNIT 206	1.2			12
20	1	20	R – UNIT 224	1.2			12
21	1	20	R – UNIT 205		1.2		12
22	1	20	R – UNIT 225		1.2		12
23	1	20	L – UNITS 205, 206			1.0	12
24	1	20	S			1.0	–
25	1	20	R/VAV BOX – UNIT 207	1.0			12
26	1	20	R/VAV BOX – UNITS 220, 221	1.0			12
27	1	20	R – UNIT 207		1.2		12
28	1	30	R – UNIT 220		1.2		12
29	1	20	R – UNIT 209			1.2	12
30	1	20	R – UNIT 221			1.2	12
31	1	20	L – UNIT 207	0.6			12
32	1	20	L – UNITS 220, 221	1.0			12
33	1	20	L – UNITS 209, 210		1.0		12
34	1	20	R/VAV BOX – UNITS 218, 219		1.0		12
35	1	20	R – UNIT 211			1.2	12
36	1	20	R – UNIT 218			1.2	12
37	1	20	R – UNIT 207	1.2			12
38	1	20	R – UNIT 219	1.2			12
39	1	20	L – UNITS 209, 210		1.0		12
40	1	20	L – UNITS 218, 219		1.0		12
41	1	20	R/VAV BOX – UNITS 211, 212			1.0	12
42	1	20	R/VAV BOX – UNITS 216, 217			1.0	12
43	1	20	R – UNIT 213	1.2			12
44	1	20	R – UNIT 217	1.2			12
45	1	20	R – UNIT 212		1.2		12
46	1	20	R – UNIT 216		1.2		12
47	1	20	L – UNITS 220, 221			1.0	12
48	1	20	L – UNITS 216, 217			1.0	12
49	1	20	R/VAV BOX – UNITS 213, 214	1.0			12
50	1	20	R – UPS	1.9			10
51	1	20	R – UNIT 214		1.0		12
52	1	20	L – MECHANICAL, JANITOR ROOM/EF 1		1.0		12
53	1	20	S			1.0	–
54	1	20	R – MECHANICAL/JANITOR ROOM			1.0	12
55	1	20	L – UNITS 213, 214	1.0			12
56	1	20	L – CORRIDOR/COMM RM	1.0			10
57	1	20	L – LOUNGE		1.0		12
58	1	20	L – EXTERIOR (NL)		1.0		10
59	1	20	EF 3			1.0	12
60	1	20	R – LOUNGE			1.0	12
61	1	20	EF 3	1.0			12
62	1	20	R – CORRIDOR	1.0			12
63	1	20	EF 3		1.0		12
64	1	20	R – CORRIDOR		1.0		12
65	1	20	EF 4			1.0	12
66	1	20	S			1.0	–
67	1	20	S	1.0			–
68	1	20	S	1.0			–
69	1	20	S		1.0		–
70	1	20	S		1.0		–
71	1	20	S			1.0	–
72	1	20	S			1.0	–
73	1	20	PFB	–			–
74	1	20	PFB	–			–
75	1	20	PFB		–		–
76	1	20	PFB		–		–
77	1	20	PFB			–	–
78	1	20	PFB			–	–
79	1	20	PFB	–			–
80	1	20	PFB	–			–
81	1	20	PFB		–		–
82	1	20	PFB		–		–
83	1	20	PFB			–	–
84	1	20	PFB			–	–
				26.1	25.6	25.6	TOTALS

ALLOWED KVA 77.3
DEMAND FACTOR USED 0.8
DEMAND KVA 61.8

10,000 AIC MIN

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

Richard Matsunaga & Associates
Architects Inc.

GLENN D. OYAMA
LICENSED PROFESSIONAL ENGINEER
NO. 4210-E
HAWAII, U.S.A.

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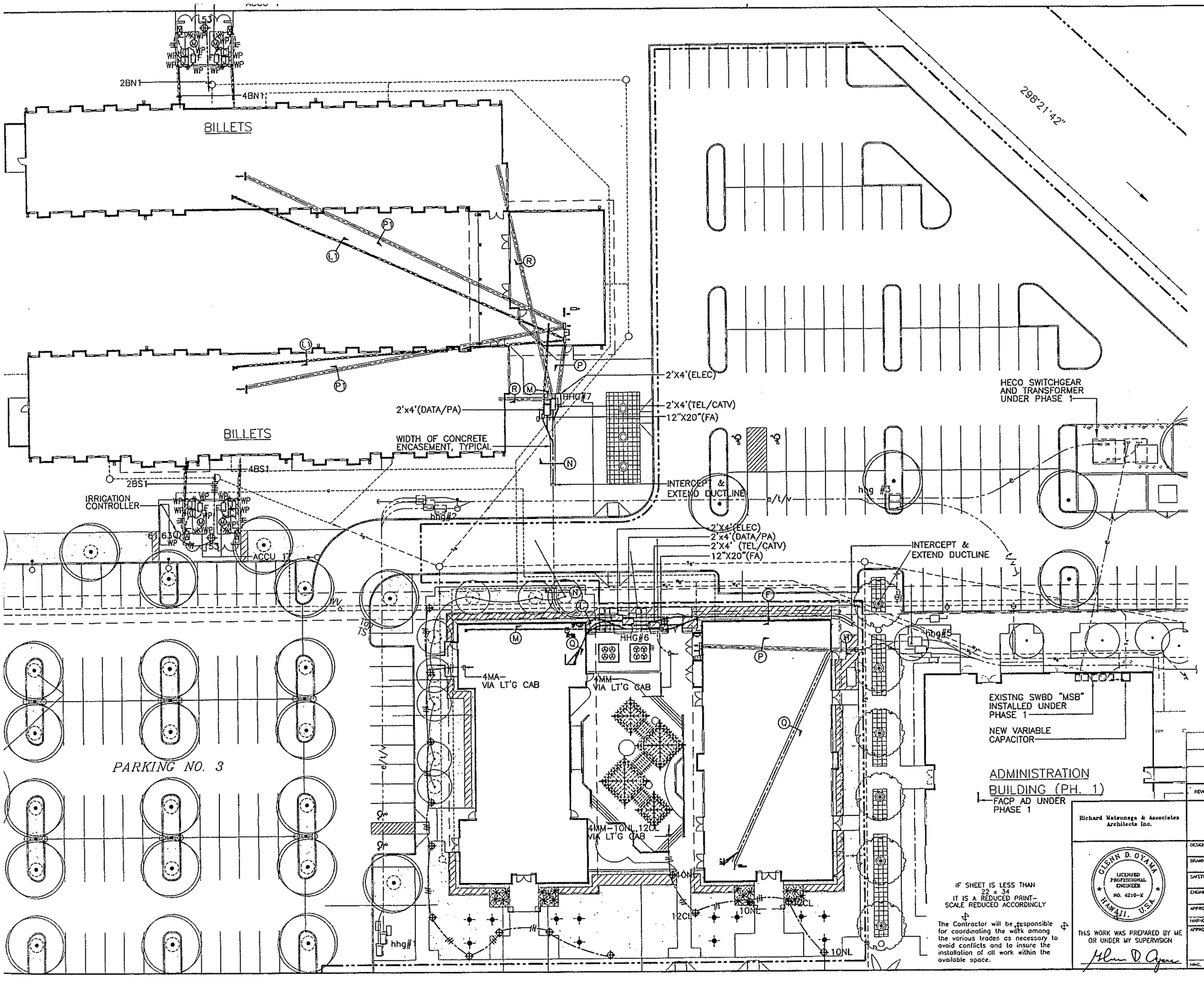
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

DESIGNED: GCA
DRAWN: SN
SAFETY: –
ENGINEER: –
APPROVED:
HANG, FAC MGMT OFFICER
APPROVED:
HQD, USPFO FOR HANG
APPROVED:
HANG, CONTRACTING & ENGINEERING OFFICER

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS – PANEL SCHEDULES

DATE 3-28-00
SCALE: NONE
DWG # E2.16
SHEET 135 OF 228



SITE ELECTRICAL PLAN

SCALE : 1" = 20'

NOTES:

1. SLOPE DUCTLINE TOWARD HANDHOLES.
2. SEE PHASE 1 DRAWINGS FOR EXISTING ELECTRICAL EQUIPMENT AND DUCTLINE NOT SHOWN.

GRAPHIC SCALE

20' 10 0 20' 40'

1" = 20'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

Richard Matsunaga & Associates Architects Inc.

GLENN D. OYAMA LICENSED PROFESSIONAL ENGINEER NO. 4210-K HAWAII, U.S.A.

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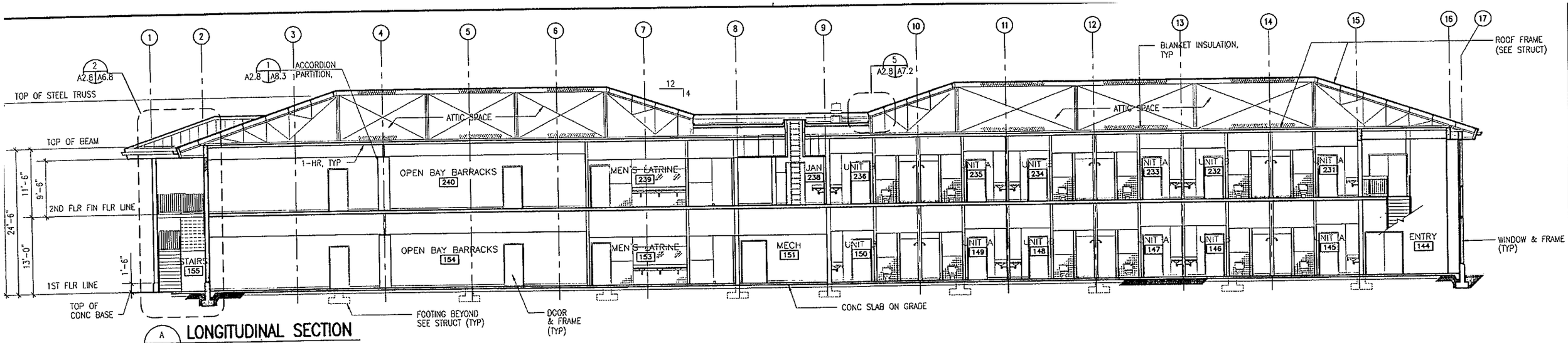
298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

SITE ELECTRICAL PLAN

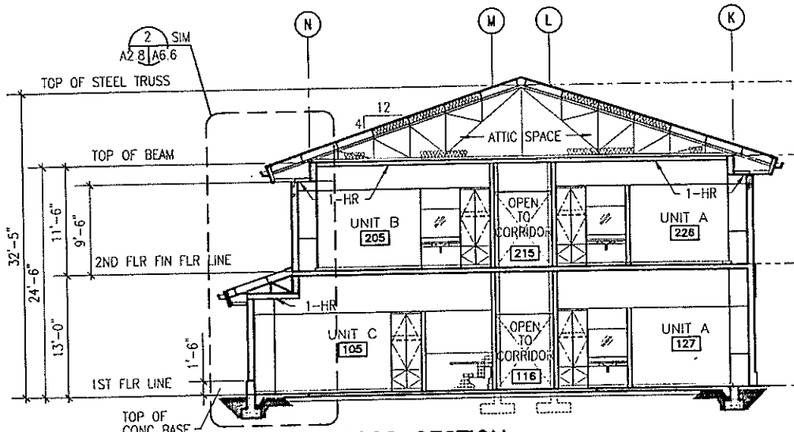
DESIGNED: GCA
DRAWN: SN
SAFETY: –
ENGINEER: –
APPROVED: HARNG, FAC MGMT OFFICER
APPROVED: NGB, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE 3-28-00
SCALE AS NOTED
DWG # E1.2
SHEET 53 OF 228



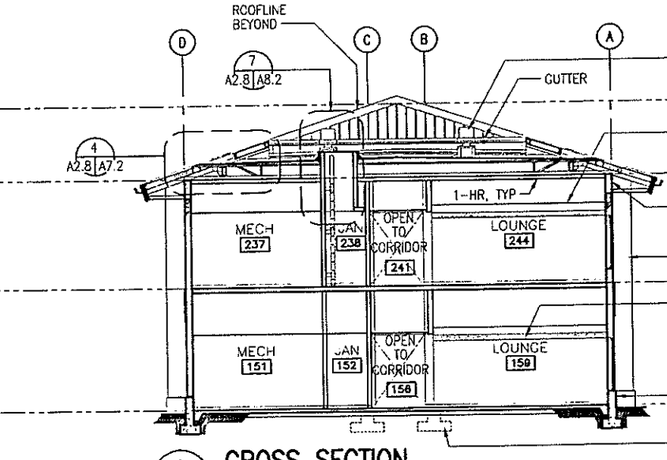
A LONGITUDINAL SECTION

A2.1 2.2 2.3 2.5 2.9 2.11 A2.8 1/8" = 1'-0"



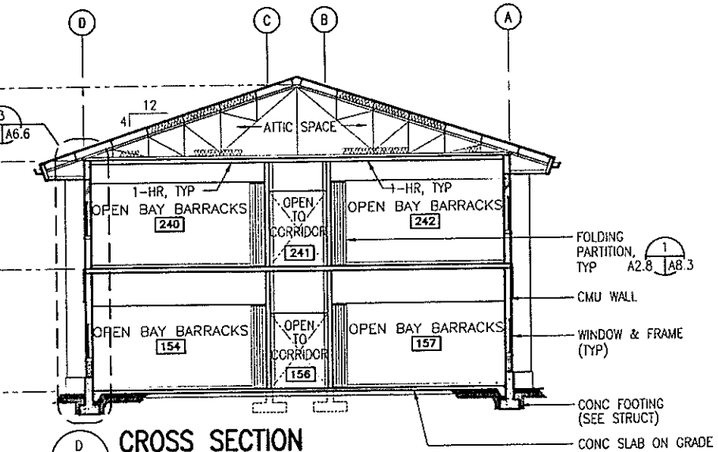
B CROSS SECTION

A2.1 2.2 2.4 2.5 2.10 2.12 A2.8 1/8" = 1'-0"



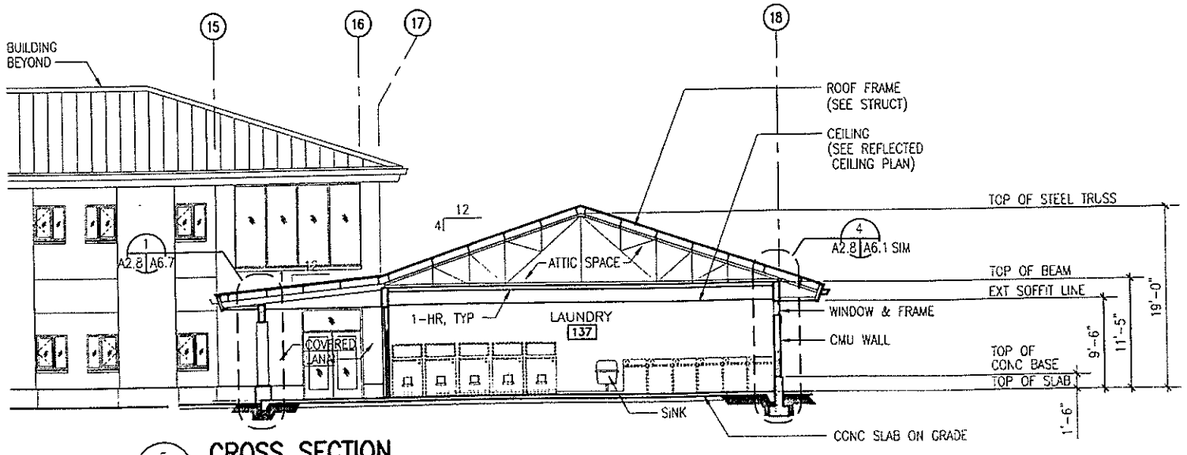
C CROSS SECTION

A2.1 2.2 2.3 2.5 2.9 2.11 A2.8 1/8" = 1'-0"



D CROSS SECTION

A2.1 2.2 2.3 2.5 2.9 2.11 A2.8 1/8" = 1'-0"



E CROSS SECTION

A2.1 2.2 2.3 2.5 2.9 A2.8 1/8" = 1'-0"

4' 0 5' 10' 15' 20'

1/8" = 1'-0"

IF SHEET IS LESS THAN 22 x 34 IT IS A REDUCED PRINT– SCALE REDUCED ACCORDINGLY

The Contractor will be responsible for coordinating the work among the various trades as necessary to avoid conflicts and to insure the installation of all work within the available space.

REVISION NO	DESCRIPTION	DATE	BY	CHK'D

Richard Matsunaga & Associates Architects Inc.

HERBERT S. F. LEONG LICENSED PROFESSIONAL ARCHITECT No. 04050 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DEPARTMENTS OF THE ARMY AND AIR
NATIONAL GUARD OF HAWAII
OFFICE OF THE ENGINEER, FT. RUGER, HAWAII

298TH REGIONAL TRAINING INSTITUTE, PHASE II
BELLOWS AIR FORCE STATION
WAIMANALO, HAWAII

BILLETS
BUILDING SECTIONS

DESIGNED: HL
DRAWN: FV, BK
SAFETY: –
ENGINEER: –
APPROVED: HARNG, FAC MGMT OFFICER
APPROVED: NGB, USPFO FOR HAWAII
APPROVED: HNG, CONTRACTING & ENGINEERING OFFICER

DATE: 3-28-00
SCALE: NOTED
DWG # A2.8
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