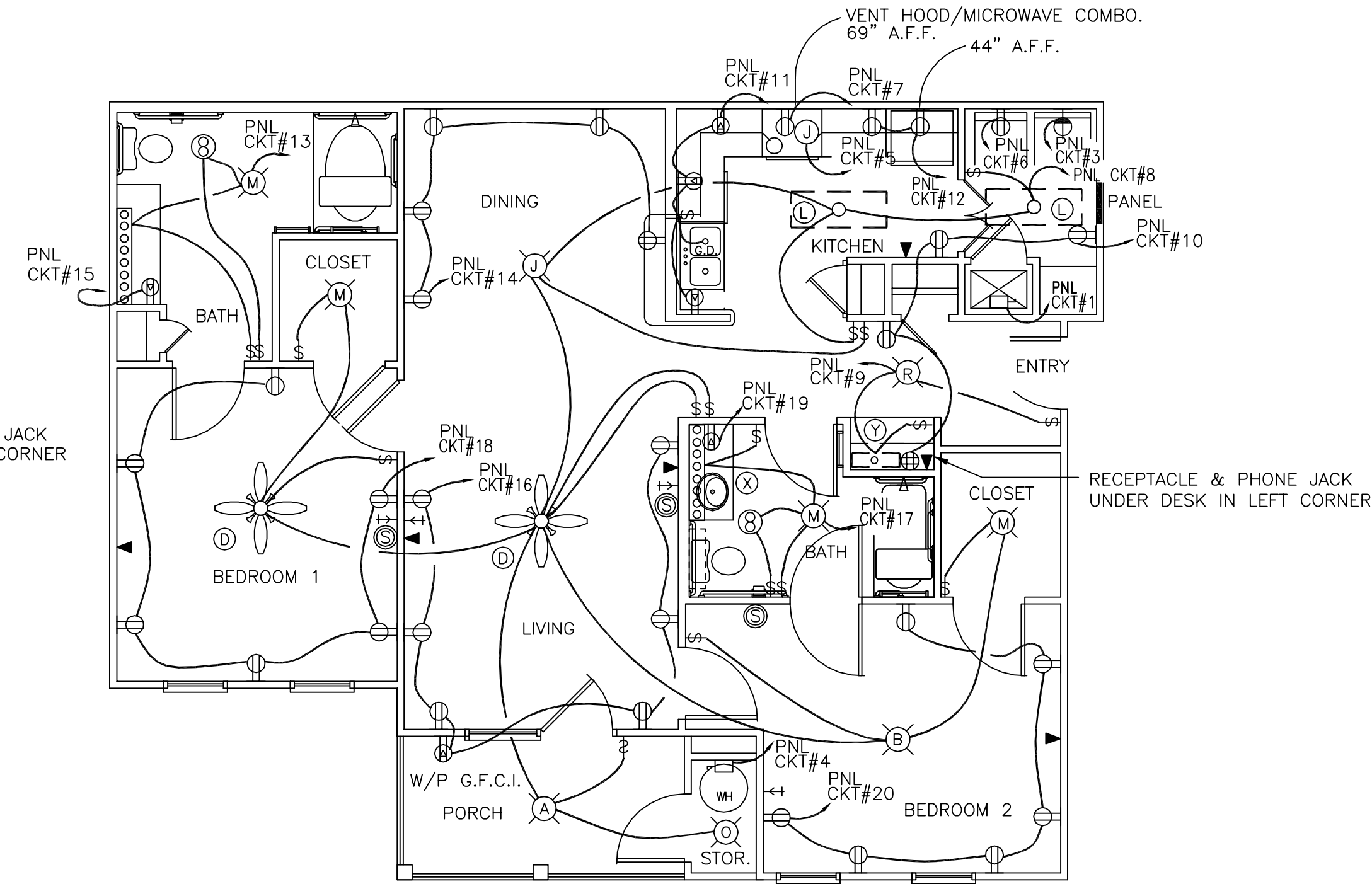
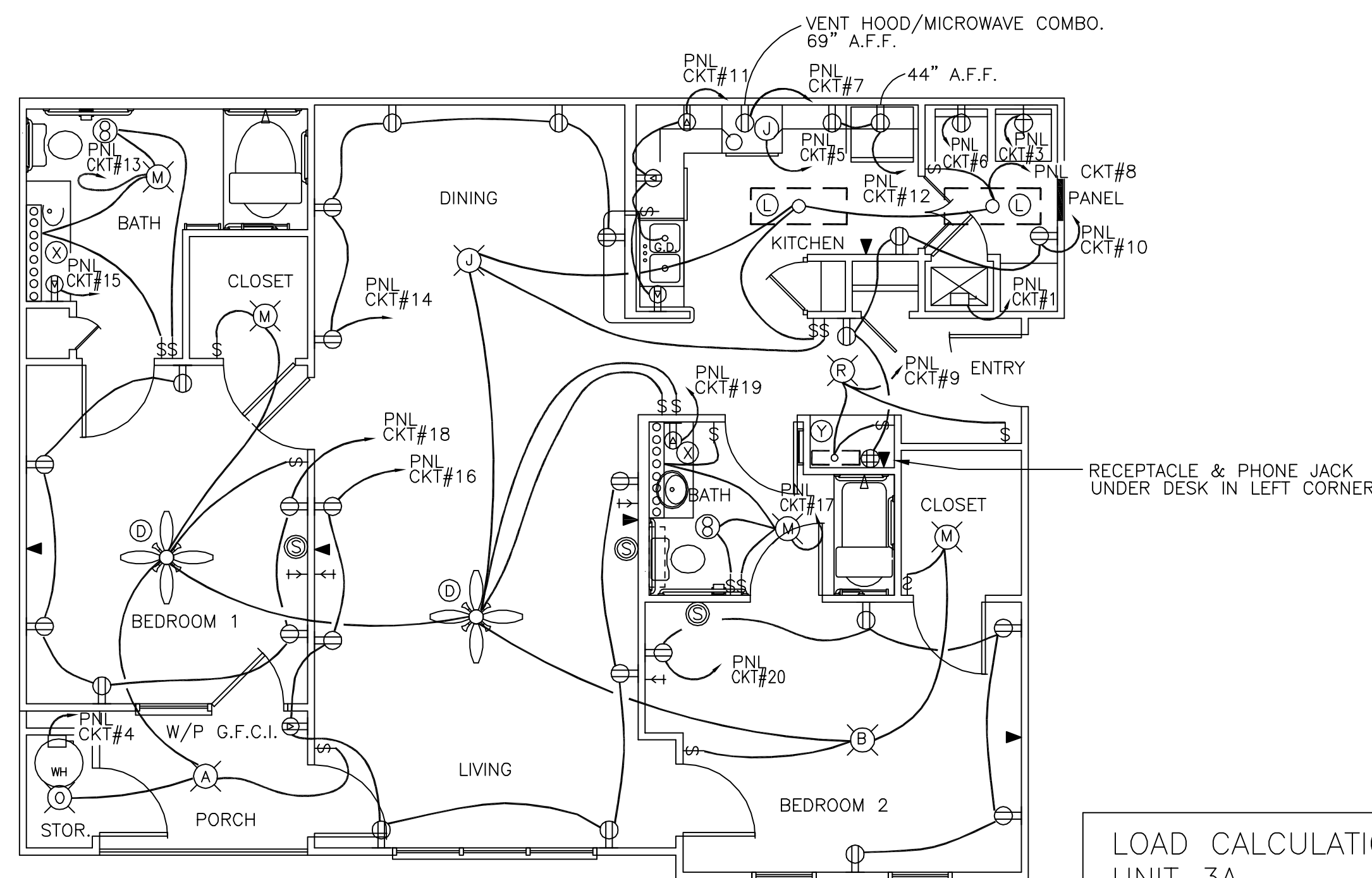


**LIGHTING & POWER PLAN UNIT 3A**  
SCALE: 1/4" = 1'-0"



**LIGHTING & POWER PLAN UNIT 2A-HC**  
SCALE: 1/4" = 1'-0"

- LEGEND**
- [ ] - FLUORESCENT FIXTURE
  - [ ] - BROADWAY LIGHT
  - [ ] - CEILING FAN
  - [ ] - CEILING MTG FIXTURE
  - [ ] - WALL MTG FIXTURE
  - [ ] - RECESSED FIXTURE
  - [ ] - VENT
  - [EXIT] - EXIT LIGHT, BATTERY BACK-UP
  - [ ] - EMERGENCY LIGHT, BATTERY BACK-UP
  - [ ] - SWITCH
  - [ ] - 3 WAY SWITCH
  - [ ] - DUPLEX RECEPTACLE
  - [ ] - GFI RECEPTACLE
  - [ ] - DISCONNECT SWITCH
  - [ ] - POWER PANEL
  - [WH] - HOT WATER HEATER WITH DISCONNECT
  - [ ] - 220 OUTLET
  - [ ] - SMOKE DETECTOR
  - [ ] - CABLE TV OUTLET
  - [ ] - PHONE
  - [ ] - QUAD RECEPTACLE



**LIGHTING & POWER PLAN UNIT 2B-HC**  
SCALE: 1/4" = 1'-0"

LIGHT FIXTURE SCHEDULE						
MARK	TYPE	MFR.	CAT. NO.	LAMP	MOUNTING	VOLTS
(A)	A	PROGRESS	P5745-30	2	SURFACE	120
(B)	B	PROGRESS	P4961-30	2	SURFACE	120
(C)	CB	PROGRESS	P7196-30ES	4	SURFACE	120
(D)	CD	CRAFTMADE	TX107-W/WA	X	SURFACE	120
(E)	CD1	CRAFTMADE	F104/403	1/4	ATTACHMENT	120
(F)	X	LITHONIA	10830120ES	1	SURFACE	120
(G)	CE	LITHONIA	LM5W3R120/277ELN	X	SURFACE	120
(H)	CF	LITHONIA	ELM2	2	WALL	120
(I)	CO	PROGRESS	P87AT0/808231	1	RECESSED	120
(J)	CR	PROGRESS	P5097-10	1	PENDANTS	120
(K)	CQ	PROGRESS	P3299-10	6	WALL & VANITY	120
(L)	D	PROGRESS	P7816-30ES	2	SURFACE	120
(M)	G	DESIGNERS	4732-PB	1	SURFACE	120
(N)	J	DESIGNER	4731-PB	1	SURFACE	120
(O)	K	EAGLE	604	1	SURFACE	120
(P)	R3	PROGRESS	P87-AT/8066-31	1	RECESSED	120
(R)	S	DESIGNER	1151PB	2	SURFACE	120
(S)	SMOKE	FIREX	4518	X	CEILING	120 SMOKE DETECTOR W/BATTERY BACKUP
(T)	X	PER OWNER	X	X	X	X
(U)	X	LITHONIA	11884120ES	2	SURFACE	120
(V)	CQ	PROGRESS	P3335-10	5	WALL & VANITY	120
(W)	CQ	PROGRESS	P3300-10	8	WALL & VANITY	120
(Y)	D	PROGRESS	P7183-30	2	CEILING	120

**LOAD CALCULATION FOR DWELLING UNIT UNIT 2A-HC & 2B-HC**

GENERAL LIGHTING LOAD VA/SF NEC TABLE 220-3	3VA X 1100SF = 3300VA
KITCHEN APPLIANCE NEC 220-16(a)	1500VA X 2 = 3000VA
LAUNDRY CIRCUIT NEC 220-16(b)	1500VA X 1 = 1500VA
HEATING AND A/C LOAD (LARGEST OF)	3840VA X 1 = 3840VA
ELECTRIC CLOTHES DRYER NEC 220-18	5000VA X 1 = 5000VA
ELECTRIC RANGE NEC 220-19	8000VA X 1 = 8000VA
WATER HEATER	4500VA X 1 = 4500VA
<b>TOTAL LOAD</b>	<b>29140VA</b>
	29140VA / 240V = <b>121.42A</b>

**LOAD CALCULATION FOR DWELLING UNIT UNIT 3A**

GENERAL LIGHTING LOAD VA/SF NEC TABLE 220-3	3VA X 1300SF = 4020VA
100% DEMAND TO FIRST 3000VA LIGHTING LOAD	3000VA X 1 = 3000VA
35% DEMAND TO REMAINDER OF LTG. LOAD, NEC TABLE 220-3	1020VA X 0.35 = 357VA
KITCHEN APPLIANCE NEC 220-16(a)	1500VA X 2 = 3000VA
LAUNDRY CIRCUIT NEC 220-16(b)	1500VA X 1 = 1500VA
HEATING AND A/C LOAD (LARGEST OF)	4320VA X 1 = 4320VA
ELECTRIC CLOTHES DRYER NEC 220-18	5000VA X 1 = 5000VA
ELECTRIC RANGE NEC 220-19	8000VA X 1 = 8000VA
WATER HEATER	4500VA X 1 = 4500VA
<b>TOTAL LOAD</b>	<b>29677VA</b>
	29677VA / 240V = <b>123.65A</b>

**SERVICE ENTRANCE CALCULATION FOR 24 UNIT BUILDING (TYPICAL FOR BUILDINGS 2, 6, 9, 10)**

UNIT TYPE	LOAD (VA)	QUANTITY	TOTAL LOAD
UNIT 1A	27676	X 0	= 0VA
UNIT 1B	27976	X 0	= 0VA
UNIT 2A	29140	X 12	= 349680VA
UNIT 2B	29635	X 0	= 0VA
UNIT 3A	29677	X 12	= 356124VA
HOUSE PANEL	4500	X 1	= 4500VA
<b>TOTAL LOAD</b>			<b>710304VA</b>
DEMAND FACTOR FOR 24 UNITS (NEC TABLE 220-32)			
DEMAND	0.35	X 710304	= 248606.4VA
CALCULATE AMPACITY			
	248606.4 / 208V / 1.732	=	<b>690.08A</b>

**SERVICE ENTRANCE CALCULATION FOR 36 UNIT BUILDING (TYPICAL FOR BUILDINGS 1, 7, 8)**

UNIT TYPE	LOAD (VA)	QUANTITY	TOTAL LOAD
UNIT 1A	27676	X 12	= 332112VA
UNIT 1B	27976	X 0	= 0VA
UNIT 2A	29140	X 6	= 174840VA
UNIT 2B	29635	X 6	= 177810VA
UNIT 3A	29677	X 12	= 356124VA
HOUSE PANEL	4500	X 1	= 4500VA
<b>TOTAL LOAD</b>			<b>1045386VA</b>
DEMAND FACTOR FOR 24 UNITS (NEC TABLE 220-32)			
DEMAND	0.30	X 1045386	= 313615.8VA
CALCULATE AMPACITY			
	313615.8 / 208V / 1.732	=	<b>870.54A</b>

SCALE: AS NOTED

FILE: -

JOB No.: -

DATE: 03-29-04

SHEET

E-13

OF -

THE BRYAN COMPANY  
ISLAND PARK  
APARTMENT COMMUNITY  
SHREVEPORT, LA

ISLAND PARK  
DAMMON ENGINEERING, INC.  
ARCHITECTS - ENGINEERS  
SLIDELL, LA 70458  
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