

TYPE N90D MB PANEL BD. (SQ. D)  
 VOLTAGE 120/240V 1ØPH 3W 6Ø HZ3  
 MOUNTING RECESS

## PANEL 1 THRU 9

MAIN5 MLO  
 EQUIPMENT - SHORT CIRCUIT  
 RATING 10,000 AMPS  
 SYMMETRICAL AMPS

CKT	DESIGNATION	WIRE	CIRCUIT BREAKER TRIP POLE	CONN. LOAD WATTS	PH	CONN. LOAD	CIRCUIT BREAKER TRIP POLE	DESIGNATION	CKT
1	GENERAL LIGHTING	14	20 1	1500	A	10	20 1	TOILET RM GFCL RECEPT.	2
3	THRU WALL HYVAC UNIT	12	20 2	3680	B	10	20 1	TOIL EX FAN/DRYER REPT LIGHTS	4
5	THRU WALL HYVAC UNIT	12	20 2		C	5	20 1	SPARE	6
1	RANGE	8	40 2	8000	A	10	20 1	REFRIGERATOR	8
9	RANGE	8	40 2		B	4000	30 2	WASHER/DRYER	10
11	KITCHEN RECEPT (GFCL)	12	20 1		C		20 1	WASHER/DRYER	12
13	KITCHEN RECEPT (GFCL)	12	20 20		A		20 1	SPARE	14
15	WATER HEATER	12	20 20	3000	B			SPACE	16
17	WATER HEATER	12	20 20		C			SPACE	18
19					A				20
21					B				22
23					C				24

## TYPICAL PANEL FOR NINE CLUSTER UNITS

TYPE N90D MB PANEL BD. (SQ. D)  
 VOLTAGE 120/240 V 1ØPH 3W 6Ø HZ3  
 MOUNTING RECESS

## SHOP PANEL

MAIN5 MLO  
 EQUIPMENT - SHORT CIRCUIT  
 RATING 10,000 AMPS  
 SYMMETRICAL AMPS

CKT	DESIGNATION	WIRE	CIRCUIT BREAKER TRIP POLE	CONN. LOAD	PH	CONN. LOAD	CIRCUIT BREAKER TRIP POLE	DESIGNATION	CKT
1	GENERAL LIGHTING	12	20 1	1150	A	1000	20 1	GENERAL OUTLETS	2
3	THRU WALL HYVAC UNIT	12	20 2	3680	B	10500	40 2	WELDING OUTLET	4
5	THRU WALL HYVAC UNIT	12	20 2		C		15 1	WELDING OUTLET	6
1	OUTSIDE QUARTS	12	20 1		A		15 1	OUTSIDE QUARTS	8
9	SPARE				B			SPARE	10
11	SPACE				C			SPACE	12
13					A				14
15					B				16
17					C				18
19					A				20
21					B				22
23					C				24

## PANEL FOR WORK SHOP

### TYPICAL 9 UNIT BUILDING

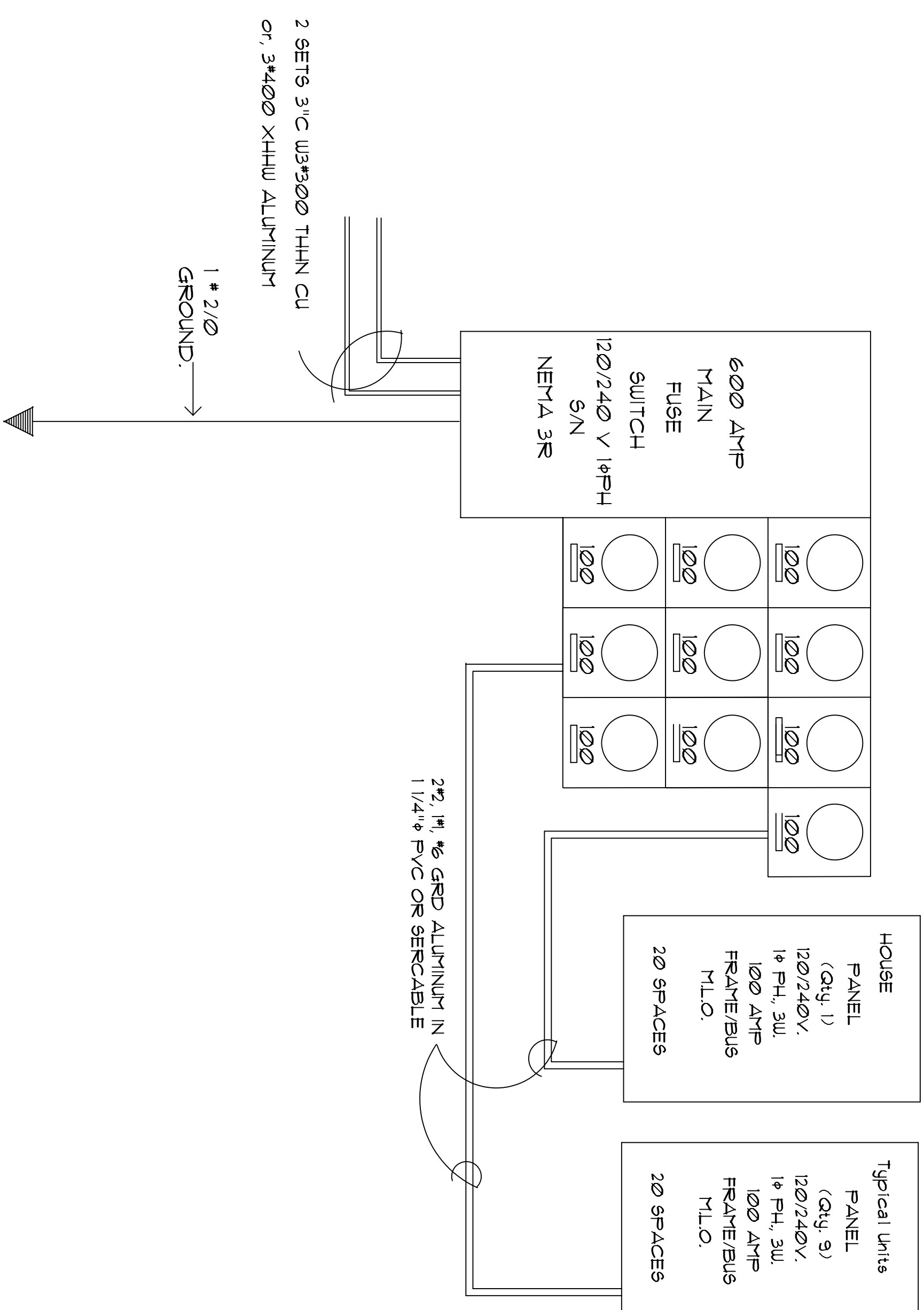
LITTING AND SMALL APPLIANCE LOADS FOR 9 UNITS (41Ø4 X 9)  
 WATER AND SPACE HEATER LOADS FOR 9 UNITS (668Ø X 9)  
 RANGE LOADS FOR 9 UNITS (8ØØØ X 9)  
 DRYER LOADS FOR 9 UNITS (25ØØ X 9)  
 NET COMPUTED LOAD FOR 9 UNITS  
 OPERONAL CALCULATION (DEMAND FACTOR 8-1Ø UNITS)  
 TOTAL ADJUSTED COMPUTED LOAD OF 9 UNITS  
 TOTAL ADJ. COMP. LOAD OF 9 UNITS DIVIDED BY SERVICE VOLTAGE  
 ADDITIONAL LOAD OF ONE WORK SHOP  
 TOTAL COMPUTED LOAD FOR TYPICAL BUILDING

SERVICE SIZE TO EACH 3 - 9 UNITS BUILDING 6ØØ AMPS @ 24Ø VOLTS  
 CONDUIT AND WIRE SIZE PER BUILDING 2 SETS OF 3Ø5ØØ CU THHN OR 2 SETS OF 3" #4ØØ ALUMINUM  
 9ØØØ IN 3" CONDUIT FROM 6ØØ AMP SERVICE RATED DISCONNECT FUSED AT 6ØØ AMPS UNDERGROUND TO UTILITY PEDISTOL. MINIMUM CONDUIT DEPTH TO BE 36" GROUNDING TO BE WITH 3 - 5/8" (COPPER CLAD) X 8"-Ø" GROUND RODS MINIMUM 6"-Ø" SPACING AND CONNECTED WITH 2/Ø CU.

### TYPICAL UNIT LOAD CALCULATION

=36,936 VA  
 =6Ø12Ø VA  
 =12,ØØØ VA  
 =22,5ØØ VA  
 =19,156 VA  
 =43%  
 82,369,ØØ8 VA  
 24Ø VOLTS  
 343,214 AMPS  
 88,68 AMPS  
 43,1Ø9 AMPS

TOTAL HEATED AND COOLED SQUARE FOOTAGE 368 SQ. FT. X 3VA / SQ. FT. =11Ø4 VA  
 SMALL APPLIANCE LOAD  
 GENERAL LIGHTING SMALL APPLIANCE  
 FIRST 3ØØØ VA @ 1ØØ%  
 REMAINING VA @ 3%  
 TOTAL COMPUTED LOAD OF GENERAL LIGHTING AND SMALL APPLIANCES RANGE @ 8Ø%  
 HEAT  
 COMPACT DRYER  
 WATER HEATER  
 NET COMPUTER LOAD PER UNIT  
 TOTAL VA DIVIDED BY SERVICE VOLTAGE TO UNIT  
 NET COMPUTED AMPERAGE PER UNIT  
 SERVICE SIZE TO EACH UNIT IS 1ØØ AMPS @ 24Ø VOLTS  
 CONDUIT AND WIRE SIZE TO EACH UNIT IS ALUMINUM 9ØØØ 2" #21ND 1# 6 GRND N 1"



## ELECTRICAL RISER DIAGRAM FOR 9-UNITS

### TYPICAL WORK SHOP UNIT CALCULATION

TOTAL HEATED AND COOLED SQ FT 368 SQ FT X 3 VA / SQ FT =11Ø4 VA  
 2 APPLIANCE CIRCUITS  
 1 WELDING CIRCUIT  
 3 EXTERIOR BUILDING LIGHTING CIRCUITS  
 1 HEATING UNIT  
 TOTAL NET COMPUTED LOAD FOR WORK SHOP  
 TOTAL VA DIVIDED BY SERVICE VOLTAGE  
 NET COMPUTED AMPERAGE OF WORK SHOP @ 1ØØ AMPS  
 (SEE TYPICAL UNIT CALCULATION FOR CONDUIT AND WIRE SIZE)

=11Ø4 VA  
 =3,ØØØ VA  
 =9,6ØØ VA  
 =3,5ØØ VA  
 =12,84 VA  
 24Ø VOLTS  
 =19,Ø76 AMPS

PROJECT: MAGNOLIA VILLAGE  
 TITLE: TYPICAL NINE UNIT CLUSTER ELECTRICAL

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 148 LURLINE LANE  
 TALLAHASSEE, FL 32308

STATE OF FLORIDA  
 MARVIN H ALLEN  
 5796  
 REGISTERED ARCHITECT

NOT VALID UNLESS  
 ORIMPED

DATE:  
 DESIGN BY: MH4  
 DRAWN BY: MH4  
 REVISED:  
 JOB NUMBER: 2211Ø5  
 SHEET NUMBER: E2.Ø

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