# A RENOVATION FOR: THE GUEST HOUSE MAIN BUILDING

### SYMBOLS **ABBREVIATIONS** - DETAIL OR SECTION ACOUS ACOUSTIC FI R. FLOOR A.F.F. ABOVE FINISH FLOOR GA GAUGE ROOM - ROOM NAME ROOM WALL ALUM. ALUMINUM GALVANIZED GALV SECTION NAME 000 - ROOM NO. CLG. CEILING GYP. BE GYPSUM BOARD CONTROL JOINT CJ HOSE BIB SHEET NUMBER CML CONCRETE MASONRY UNI HANDICAPPED COLUMN HOLLOW METAL COL DETAIL OR SECTIO - DETAIL OR SECTION INSULATION CONC CONCRETE NUMBER NUMBER JOIST CONT CONTINUOUS INTERIOR VIEW DIRECTION BUILDING MAXIMUM CARPET ELEVATION SECTION MINIMUM CERAMIC TILE SHEET NUMBE NOT IN CONTRAC SHEET NUMBER DOUBLE NOT TO SCALE - ELEVATION NUMBER DRINKING FOUNTAIN DIAM ROOF DRAIN CENTER LINE DIAMETER SIMILAR **ELEVATION** ROOF LEADER/DOWNSPOUT STEEL A201 EXPANSION JOINT STRUCTURAL WINDOW STRUCT. - WINDOW NUMBER EQUAI THROUGH SHEET NUMBER TYPE TAG U.N.O. UNLESS NOTED OTHERWISE EWC ELECTRIC WATER COOLER - DETAIL NUMBER VCT VINYL COMPOSITION TILE EXHAUST EXH VENT THROUGH ROOF VTR EXIST EXISTING DETAIL WWF WOVEN WIRE FABRIC DOOR EXT. EXTERIOR A501 $01 \rightarrow 000$ number FIRE EXTINGUISHER NUMBER TAG — SHEET NUMBER FIRE EXTINGUISHER CABINET FEC FLOOR DRAIN ---- DETAIL NUMBER PARTITION FIRE DEPT. CONNECTION P1 WALL PARTITION DETAIL TYPE TAG XX/A401 FIRE HYDRANT ASSEMBLY FHA NUMBER (MINOR) $\mathbf{V}$ SHEET NUMBER REVISION TAG 1 REVISION NUMBER COLUMN GRID STRUCTURAL Α CODE ANALYSIS DESIGNATION GRID - GRID LINE THIS PROJECT IS DESIGNED TO MEET THE REQUIREMENTS OF: 2014, 5TH EDITION FLORIDA BUILDING CODE DETAIL OR 2014, 5TH EDITION FLORIDA BUILDING CODE EXISTING SECTION DETAIL OR 2014, 5TH EDITION FLORIDA PLUMBING CODE NUMBER ENLARGED 2014. 5TH EDITION FLORIDA MECHANICAL CODE A102 PLAN 2014, 5TH EDITION FLORIDA ENERGY CODE FLORIDA FIRE PREVENTION CODE 5th EDITION SHFFT NUMBER NEC 2011 ALL WORK SHALL CONFORM TO THESE CODES AND ALL OTHER APPLICABLE CODES, STANDARDS, AND ORDINANCES. OCCUPANCY TYPE: R-4 RESIDENTIAL WITH ACCESSORY A-3 ASSEMBLY \* PER FBC 303.1.2 ASSEMBLY LESS THAN 750SF CAN BE CLASSIFIED AS PART OF THAT OCCUPANCY. CONSTRUCTION TYPE: VB - SPRINKLERED ALLOWABLE HEIGHT AND BUILDING AREAS FLORIDA BUILDING CODE - TABLE 503 GROUP: R-4 RESIDENTIAL ALLOWABLE PROVIDED MAXIMUM HEIGHT (ft) 40' 31'-2" MAXIMUM STORIES 7,000 / STORY FIRST - 4,702 SF MAXIMUM FLOOR AREA (ft<sup>2</sup>) SECOND - 3,528 SF FIRE PROTECTION SYSTEMS FBC 903: APPROVED AUTOMATIC SPRINKLER SYSTEM THAT MEETS NFPA 13R SHALL BE PROVIDED THROUGHOUT BUILDINGS CONTAINING A GROUP R-4 OCCUPANCY AS A SEPARATE PERMIT. FIRE ALARM AND DETECTION SYSTEMS FBC 907: A FIRE ALARM AND DETECTION SYSTEM IS REQUIRED FOR THIS PROJECT AND SHALL BE PROVIDED UNDER A SEPARATE PERMIT. EXIT ACCESS TRAVEL DISTANCE FBC 1016.2: RESIDENTIAL: MAXIMUM TRAVEL DISTANCE WITH SPRINKLER SYSTEM SHALL BE 250'-0". MAXIMUM TRAVEL DISTANCE PROVIDED = 137'-4''CORRIDORS FBC 1017.1: RESIDENTIAL: CORRIDOR FIRE RESISTANCE RATING SHALL BE 1/2HR WITH SPRINKLER SYSTEM. MINIMUM NUMBER OF EXITS FBC 1020: OCCUPANT LOAD 1-500, MINIMUM # OF EXITS SHALL BE 2.

# 3230 NE 55TH AVE SILVER SPRINGS, FLORIDA 34488

	CODE ANA	LYSIS			
	OCCUPANT LOAD	FBC 1004	4:		
	ERED				
	1 ST FLOOR AREA	AREA	FLOOR AREA SF/OCCUPANT	OCCUPANT LOAD	BEDS RESIDENTS
	GUEST ROOM 100	252 SF	200	3 PERSONS	2 BEDS
	GUEST ROOM 101	252 SF	200	3 PERSONS	2 BEDS
	GUEST ROOM 102	252 SF	200	3 PERSONS	2 BEDS
	EXERCISE ROOM	641 SF	50 GROSS	43 PERSONS	
>	FORMAL DINING	634 SF	1 <i>5/</i> NET	42 PERSONS	
<pre></pre>	DINING	328 SF	1 <i>5/</i> NET	22 PERSONS	
	SUBTOTAL 1ST FLOOR		116 PERSONS	6 BEDS	
	2ND FLOOR AREA	AREA	FLOOR AREA SF/OCCUPANT	OCCUPANT LOAD	BEDS RESIDENTS
\$	GUEST ROOM 200	556 SF	200	3 PERSONS	2 BEDS
,	GUEST ROOM 201	352 SF	200	2 PERSONS	2 BEDS
	GUEST ROOM 203	321 SF	200	2 PERSONS	2 BEDS
-	GUEST ROOM 204	351 SF	200	2 PERSONS	2 BEDS
	GUEST ROOM 205	311 SF	200	2 PERSONS	1 BED
	SUBTOTAL 2ND FLOOR			11 PERSONS	9 BEDS
	TOTAL			127 PERSONS	15 BEDS

INTERIOR WALL AND CEILING FINISH REQUIREMENTS FBC 803.5:

**GROUP R4 - RESIDENTIAL - SPRINKLERED** VERTICAL EXITS & ROOMS AND EXIT CORRIDORS PASSAGEWAYS ENCLOSED SPACES INTERIOR WALL AND CEILING FINISHES FLAME SPREAD AND SMOKE-DEVELOPED INDEXES AS

PER ASTM E 84: CLASS A: FLAME SPREAD 0-25; SMOKE-DEVELOPED 0-450

CLASS B: FLAME SPREAD 26-75; SMOKE-DEVELOPED 0-450 CLASS C: FLAME SPREAD 76-200; SMOKE DEVELOPED 0-450 EGRESS WIDTH FBC 1005.1:

	STAIRWAYS	OTHER EGRESS COMPONENT
OCCUPANT LOAD - FIRST FLOOR	0.3 PER OCCUPANT	0.2 PER OCCUPANT
116 PERSONS	N/A	REQUIRED = 72"
	N/A	PROVIDED = 102"
OCCUPANT LOAD - 2ND FLOOR	0.3 PER OCCUPANT	0.2 PER OCCUPANT
11 PERSONS	REQUIRED = 88"	REQUIRED = 72"
	PROVIDED = 99"	PROVIDED = 72"

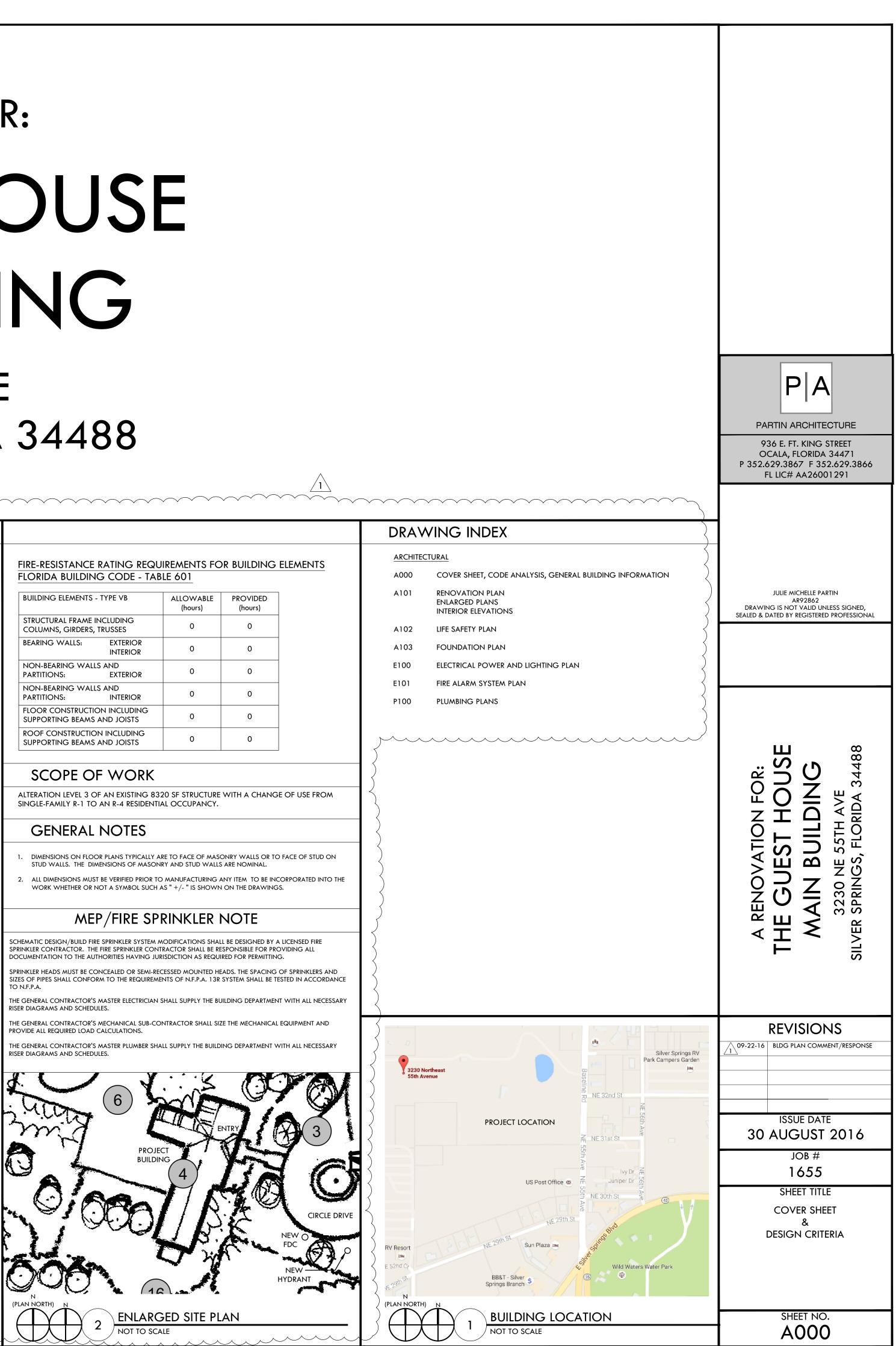
## MINIMUM NUMBER OF PLUMBING FACILITIES (FROM TABLE P403.1)

R-4 RESIDENT	ĨAL			
OCCUPANT I	OAD - 20			
FIXTURE	WATER CLOSET	LAVATORY	DRINKING FOUNTAINS	SERVICE SINKS
REQUIRED	1:10 = 2	1:10 = 2	1	1
PROVIDED	7	7	1 HI/LO	1
A-3 ASSEMB	LY			
OCCUPANT I	OAD - 107			
FIXTURE	WATER CLOSET	LAVATORY	DRINKING FOUNTAINS	SERVICE SINKS
REQUIRED	1:125 = 2	1:65 = 2	1	1
PROVIDED	2	2	1 HI/LO	1

FLORIDA BUILDING CODE - TABLE 601

BUILDING ELEMENTS -	TYPE VB	ALLOWABLE (hours)	PROVIDED (hours)
STRUCTURAL FRAME IN COLUMNS, GIRDERS, 1		0	0
BEARING WALLS:	EXTERIOR INTERIOR	0	0
NON-BEARING WALLS PARTITIONS:	S AND EXTERIOR	0	0
NON-BEARING WALLS PARTITIONS:	AND INTERIOR	0	0
FLOOR CONSTRUCTIC		0	0
ROOF CONSTRUCTION		0	0

DOCUMENTATION TO THE AUTHORITIES HAVING JURISDICTION AS REQUIRED FOR PERMITTING.



## DEMOLITION NOTES

(01) EXISTING BRICK WALKWAY TO BE REWORKED AND RE-GRADED AS REQUIRED TO PROVIDE AN ADA COMPLIANT PATH FROM ENTRY DOOR TO PARKING. (02) EXISTING SECTION OF ASPHALT DRIVE TO BE REMOVED - RE-GRADE AS REQUIRED FOR ADA ACCESS BRICK WALK AND BORDER TO BE REMOVED - GROUND TO BE CLEANED AND (03) LEVELED TO ACCOMMODATE INSTALLATION OF NEW CONCRETE SLAB EXISTING BRICK PATIO TO BE REMOVED - GROUND TO BE CLEANED AND LEVELED TO (04) ACCOMMODATE INSTALLATION OF NEW LANDSCAPING AND WALKWAY (SEE RENOVATION PLAN) (05) REMOVE EXISTING BI-FOLD DOOR AND ALL ASSOCIATED DOOR HARDWARE REMOVE EXISTING SWING DOOR AND ALL ASSOCIATED DOOR HARDWARE (06) (07) REMOVE EXISTING OVERHEAD GARAGE DOOR AND ALL ASSOCIATED BRACKETS AND HARDWARE REMOVE EXISTING CABINETRY AND ALL ASSOCIATED TRIM REMOVE EXISTING CABINETRY MOUNTED SINK. ALL WATER 09 Supply lines and drain to be capped at finish floor REMOVE EXISTING FLOOR MOUNTED TOILET. ALL WATER SUPPLY (10) LINES AND DRAIN TO BE CAPPED AT FINISH FLOOR EXISTING WOOD STUD PARTITION TO BE REMOVED - INCLUDE ALL ASSOCIATED ELECTRICAL CONDUIT AND FIXTURES, PLUMBING LINES, TELECOM RACES AND EQUIPMENT, ETC... GC TO REMOVE EXISTING COFFERED CEILING IN ORDER TO ACCOMMODATE THE 12) INSTALLATION OF A NEW COMMERCIAL GRADE KITCHEN VENTILATION HOOD SYSTEM (SEE SPECIFICATION - SHEET A104) EXISTING FINISH FLOORING TO BE REMOVED. CLEAN AND PREPARE EXPOSED SLAB (13) for installation of New Finish Flooring (see Renovation Plan) REMOVE ALL EXISTING LANDSCAPING AND OTHER ORGANIC MATTER AND DIG HOLE 14) to accommodate New Column footing - see foundation plan for proper SOIL TREATMENT AND PREPARATION (15) EXISTING METAL SLIDING DOOR AND FIXED PANEL SYSTEM TO BE REMOVED CUT AND REMOVE EXISTING GYPSUM BOARD TO ACCOMMODATE THE INSTALLATION 16) OF NEW RECESSED FIRE EXTINGUISHER CABINET - SEE SHEET A102 CUT AND REMOVE FLOOR SUBFLOOR, FLOOR FINISH, GYPSUM WALL BOARD AND GYPSUM 17) CEILING BOARD AS REQUIRED TO INSTALL NEW KITCHEN EXHAUST DUCT (DUCT TO TERMINATE AT NEW ROOF MOUNTED EXHAUST PENETRATION AND COVER (18) CUT EXISTING SLAB AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF NEW PLUMBING LINES AND FIXTURES REMOVE EXISTING GYPSUM WALL BOARD, TRIM AND HANDRAIL REQUIRED TO INSTALL NEW CHAIR LIFT (19) SYSTEM. ALTER EXISTING FRAMING AS REQUIRED TO PROVIDE BLOCKING PER MANUFACTURERS GUIDELINES

### GENERAL DEMOLITION NOTES

. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.

- THE GENERAL CONTRACTORS RESPONSIBILITY TO SURVEY AND ASSESS EACH AREA IN ORDER TO VERIFY ALL CONDITIONS AND DIMENSIONS. NOTICE TO THE ARCHITECT SHOULD BE GIVEN IMMEDIATELY IF ANY DEVIATION THAT COULD AFFECT COMPLIANCE WITH THE INTENT OF THE DESIGN INDICATED IN THE CONTRACT DOCUMENTS IS DISCOVERED.
- ELECTRICAL, FIRE PROTECTION AND PLUMBING DRAWINGS PROVIDED BY ENGINEER. NOTE: REFER TO MEP DRAWINGS TO IDENTIFY EXISTING ELECTRICAL AND HVAC EQUIPMENT AND FIXTURES TO BE REUSED AND THOSE THAT ARE TO BE DEMOLISHED - ALL NEW FIXTURES TO MATCH EXISTING UNLESS OTHERWISE SPECIFIED.
- 5. GENERAL CONTRACTOR TO OBTAIN A HOT WORK PERMIT PRIOR TO THE COMMENCEMENT OF ANY WORK INVOLVING WELDING, CUTTING, BRAZING, OR OTHER ACTIVITY THAT GENERATES SPARKS CAPABLE OF CAUSING COMBUSTION. SEE
- CAUSING SPARKS(NFPA 601). 6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE SIZE AND LOCATION OF ALL PLUMBING LINES PRIOR TO
- THE COMMENCEMENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR THE COST AND IMPLEMENTATION OF SCOPING SEWER LINES WHEN REQUIRED TO ASSES EXISTING CONDITIONS AND CONNECTION LOCATIONS.
- 7. GENERAL CONTRACTOR SHALL COORDINATE WITH THE APPLICABLE UTILITY COMPANIES AND OWNER FOR THE DISCONNECTION OF SERVICES BEFORE STARTING DEMOLITION WORK.
- 3. MISCELLANEOUS ITEMS THAT CONFLICT WITH PROPOSED CONSTRUCTION SHALL BE COORDINATED BY GENERAL CONTRACTOR FOR REMOVAL AND/OR RELOCATION WITH RELATED TRADES AS REQUIRED FOR PROPER AND COMPLETE JOB.
- EQUIPMENT, FURNITURE, APPLIANCES OR OTHER ITEMS TO BE SALVAGED OR REUSED. NOTE ITEMS THAT CANNOT BE REMOVED ARE TO BE PROPERLY PROTECTED FROM DAMAGE FOR THE DURATION OF THE PROJECT.
- 10. ITEMS NOT TO BE RETAINED BY OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- I. THE GENERAL CONTRACTOR SHALL ADHERE TO ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION AND POLLUTION CONTROL. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL DEMOLITION DEBRIS AND WASTE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. THE GENERAL CONTRACTOR SHALL ROUTINELY AND THOROUGHLY CLEAN ALL AREAS OF DEMOLITION AND ADJACENT SPACES OF DUST AND DEBRIS. GENERAL CONTRACTOR TO PROVIDE TEMPORARY PARTITIONS OR DUST PROTECTION AS REQUESTED BY OWNER OR ARCHITECT.
- 2. FOR ALL STRUCTURES TO REMAIN: PATCH, REPAIR AND FINISH ALL SURFACES AND EDGES DISTURBED BY DEMOLITION WORK. REPAIRS ARE TO MATCH NEW CONSTRUCTION FINISHES IN QUALITY, RATING, ACOUSTICS, COLOR AND ANY OTHER APPLICABLE CRITERIA.
- 13. FLOOR, WALL AND CEILING FINISHES THAT CONFLICT WITH THE APPLICATION OF SCHEDULED FINISHES SHALL BE REMOVED AND ALL SURFACES SHALL BE CLEANED AND PREPARED AS NEEDED FOR THE APPLICATION OF NEW FINISHES.
- 4. ALL DEMOLITION WORK SHALL BE DONE IN A MANNER SAFE TO LIFE AND PROPERTY AND ACCEPTABLE TO THE OWNER, ARCHITECT AND ALL OTHER JURISDICTIONS HAVING AUTHORITY.
- 15. HAZARDOUS MATERIAL NOTE: GENERAL CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY OWNER AND ARCHITECT IN WRITING OF ANY HAZARDOUS MATERIAL ENCOUNTERED DURING DEMOLITION. WORK SHALL NOT RESUME UNTIL GENERAL CONTRACTOR RECEIVES INSTRUCTION ON THE REQUIRED STEPS TO MITIGATE THE HAZARD.
- 6. PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION WORK, THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND/OR STRUCTURAL ENGINEER TO IDENTIFY ALL COMPONENTS OF THE BUILDING STRUCTURE REQUIRING BRACING, SUPPORT OR PROTECTION THROUGHOUT THE DEMOLITION PROCESS. THE GENERAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL TEMPORARY SHORING, SCAFFOLDING AND BRACING SPECIFIED TO PREVENT THE COLLAPSE, SUBSIDENCE, DEFLECTION OR DAMAGE TO ANY STRUCTURAL ELEMENTS.
- 7. PROVIDE 'FIRECODE' SMOKE/SOUND SEALANT (BY USG OR EQUAL) AT ALL PENETRATIONS INTO EXISTING PARTITIONS OR WALL ASSEMBLIES.
- 18. THE OWNER SHALL SUPPLY THE PRODUCT DATA SHEETS FOR ANY OWNER PROVIDED MATERIALS AND EQUIPMENT TO BE INSTALLED BY GENERAL CONTRACTOR.
- 19. MAINTAIN AND PROTECT ALL ELEMENTS OF MECHANICAL, ELECTRICAL AND PLUMBING SERVICE SYSTEMS THAT ARE TO REMAIN.
- 20. IF INVESTIGATIVE DEMOLITION IS REQUIRED, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE APPLICATION OF NEW FLUSH FINISHES TO MATCH EXISTING.
- 21. WHERE APPLICABLE, THE CONTRACTOR SHALL ENSURE ALL EXISTING INSULATION THAT MUST BE MOVED OR REMOVED DURING CONSTRUCTION IN EXISTING AREAS BE PROTECTED AND REPLACED IN ITS ORIGINAL INTACT CONDITION OR REPLACED WITH NEW INSULATION OF EQUAL VALUE.

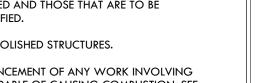
2. THE GENERAL CONTRACTOR SHALL NOT CONSIDER THIS DEMOLITION PLAN AND ASSOCIATED NOTES AS ALL INCLUSIVE. IT IS

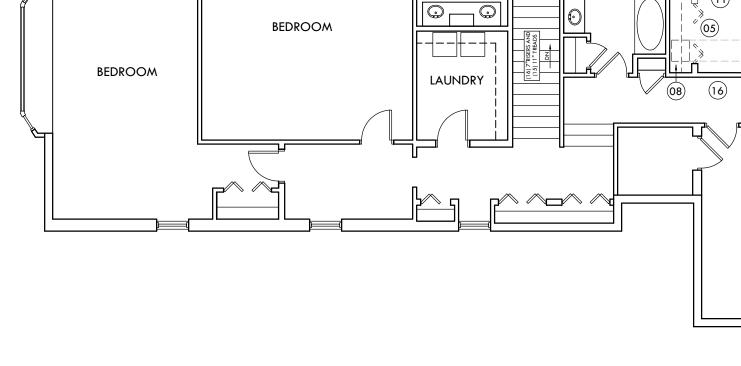
3. THE GENERAL CONTRACTOR SHALL COORDINATE ALL ARCHITECTURAL DEMOLITION DRAWINGS AND NOTES WITH HVAC,

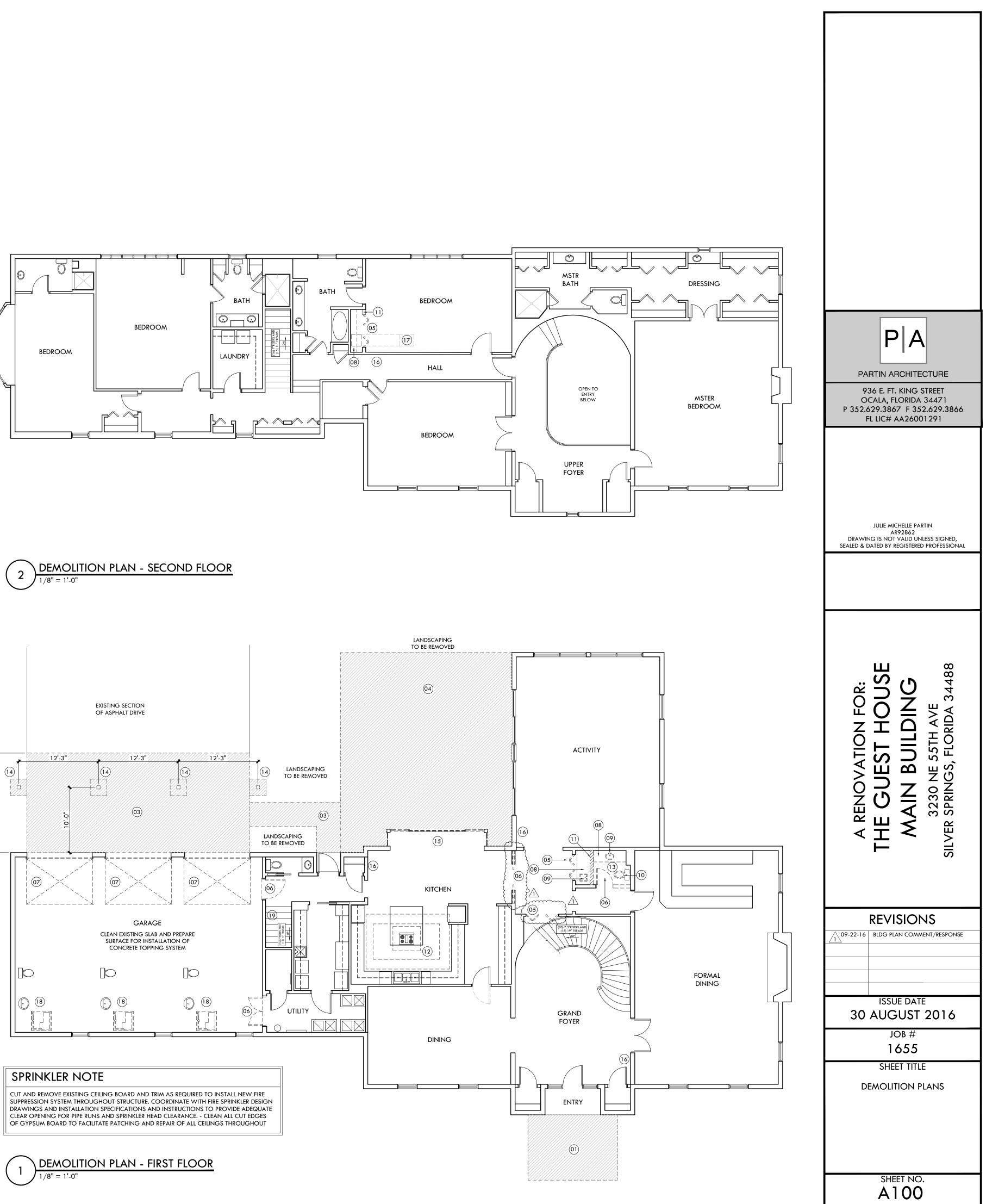
4. CONTRACTOR TO PREVENT ACCESS OF UNAUTHORIZED PERSONS TO PARTLY DEMOLISHED STRUCTURES.

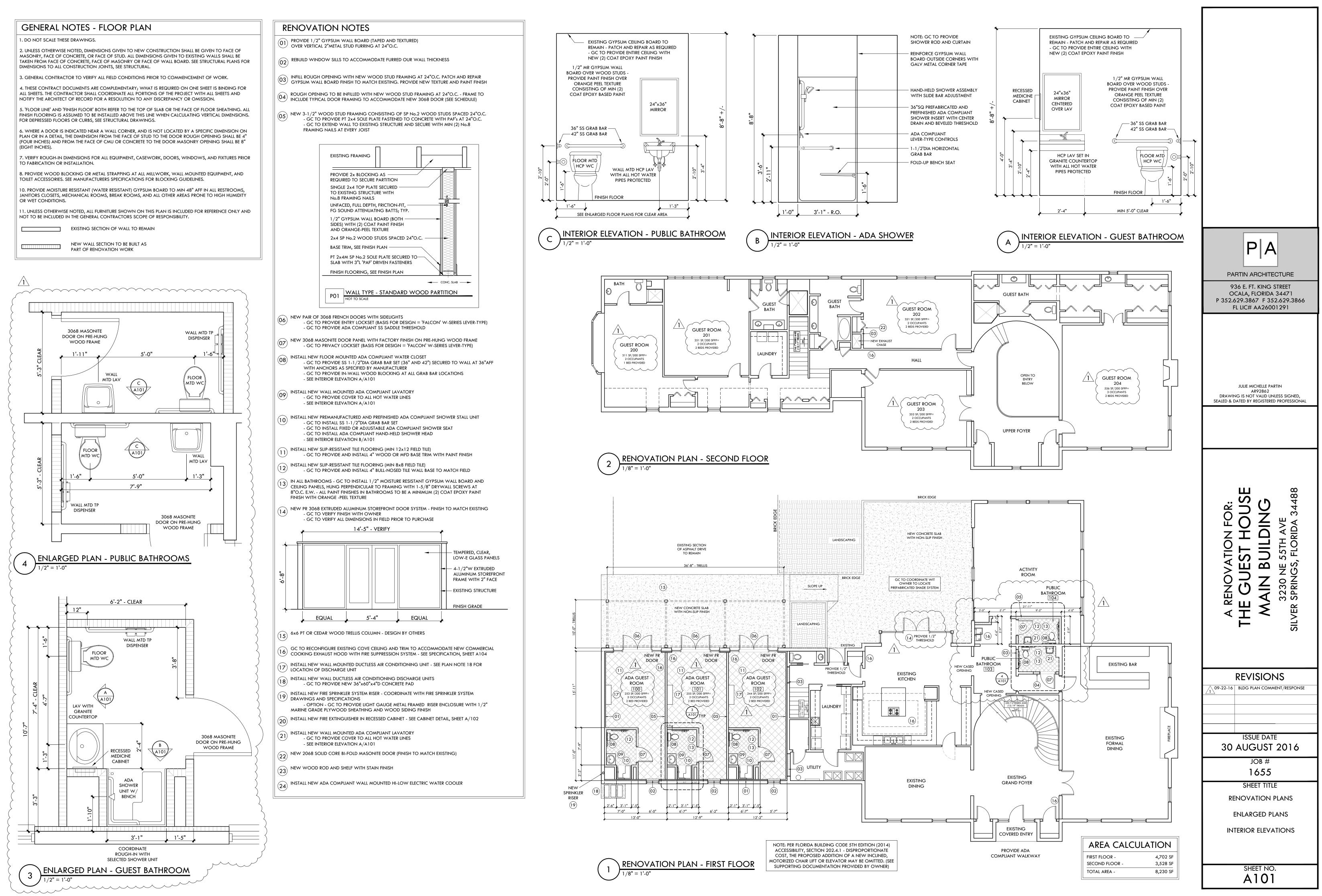
NFPA 51B AND APPENDIX A. GENERAL CONTRACTOR TO PROVIDE A FIRE-WATCH FOR THE DURATION OF THE PROCESS

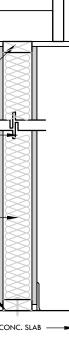
7. THE GENERAL CONTRACTOR SHALL COORDINATE WITH OWNER TO ENSURE THE REMOVAL AND PROPER STORAGE OF ALL



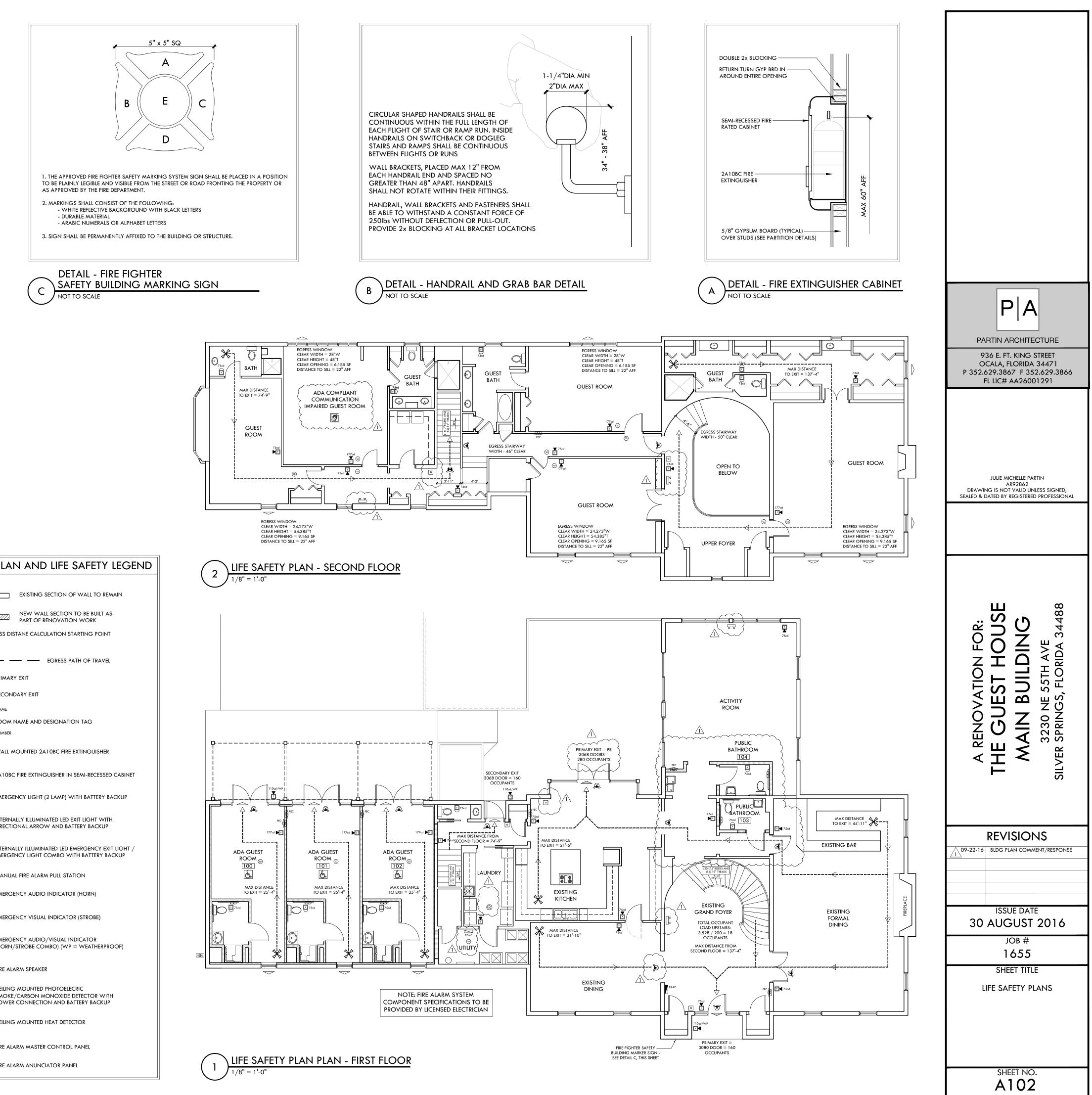




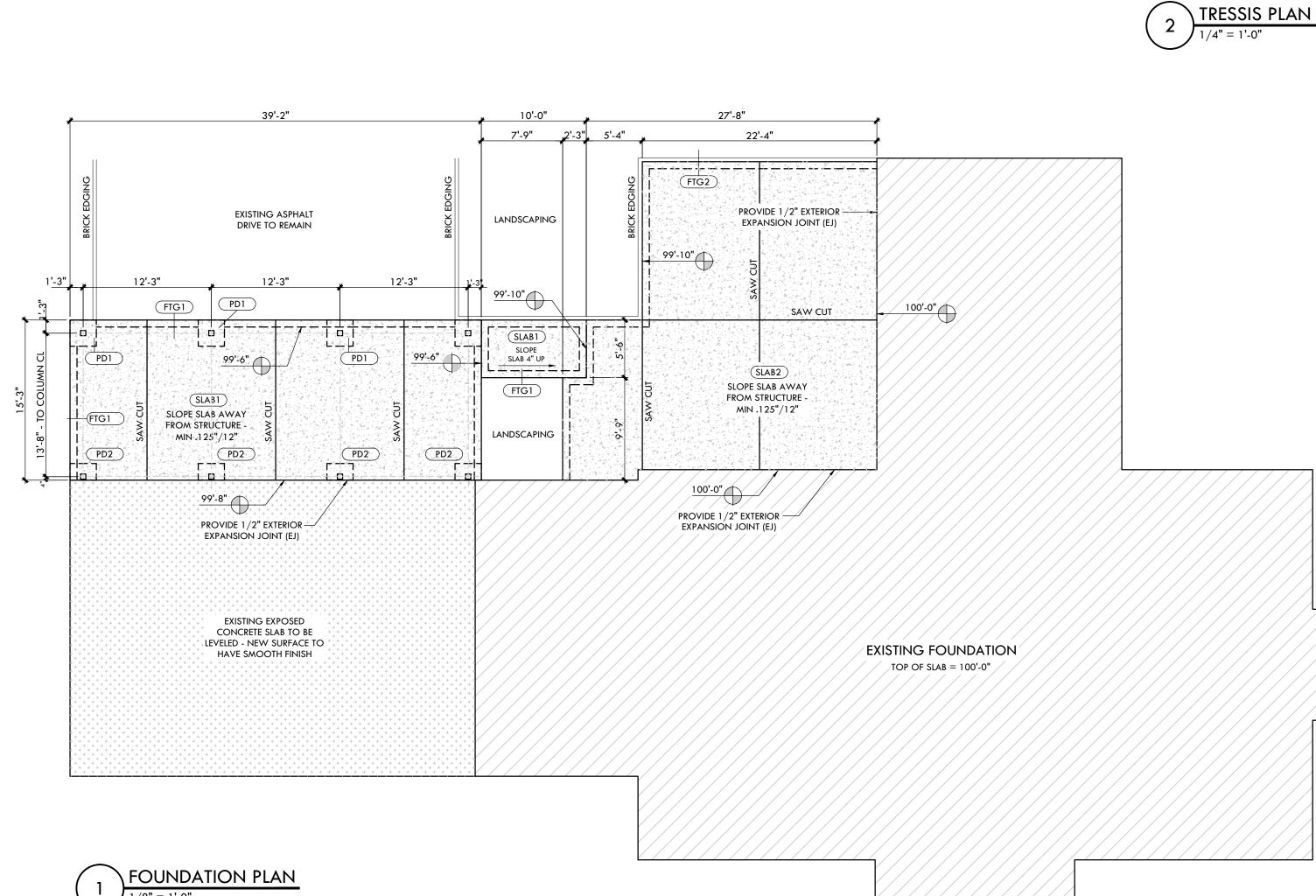


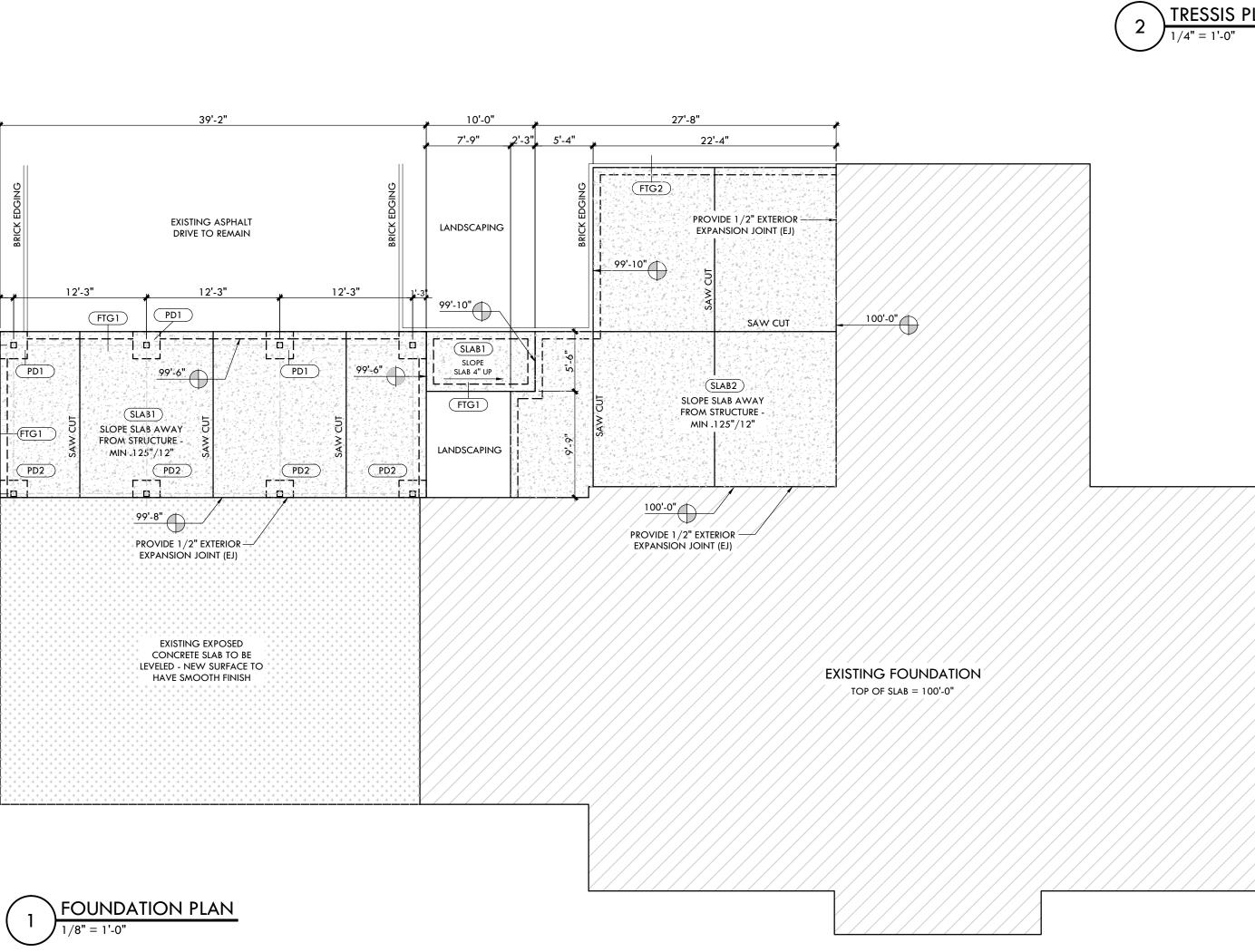


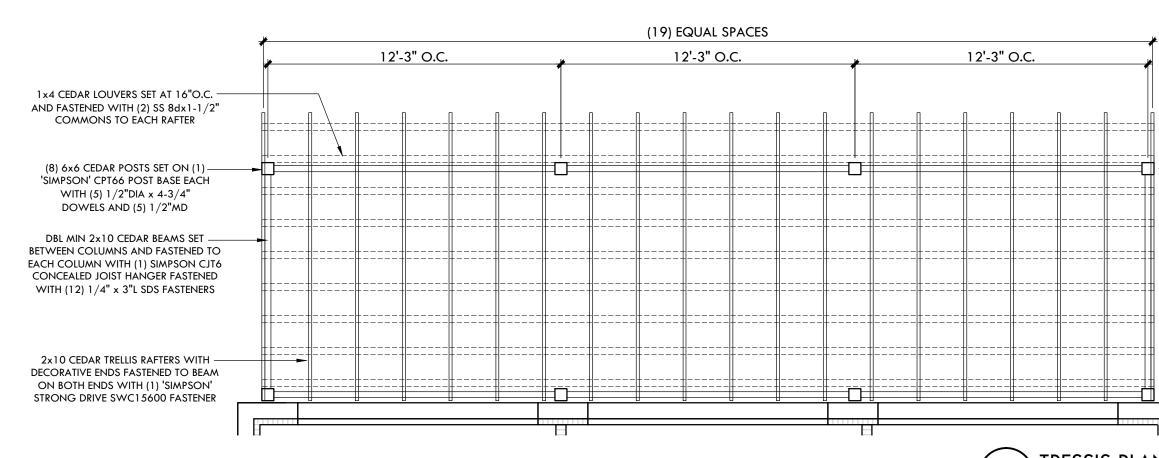
-LOOR	PLAN
	//////
EC	GRESS DIST
	<u> </u>
$\bigtriangleup$	PRIMARY
$\bigtriangleup$	SECONDA
XXXX 000	m NAME ROOM NA M NUMBER
() FE	WALL MC
FEC	2A10BC F
$\nabla$ $\nabla$	EMERGEN
$\otimes$	INTERNALI DIRECTION
$\mathbb{A} \mathbb{A} \mathbb{A}$	INTERNALI EMERGEN
0	MANUAL
F	EMERGEN
F	EMERGEN
F	emergen (Horn/S
FS	FIRE ALAR
SD	CEILING A SMOKE/C POWER C
H	CEILING A
FACP	FIRE ALAR
FAAP	FIRE ALAR

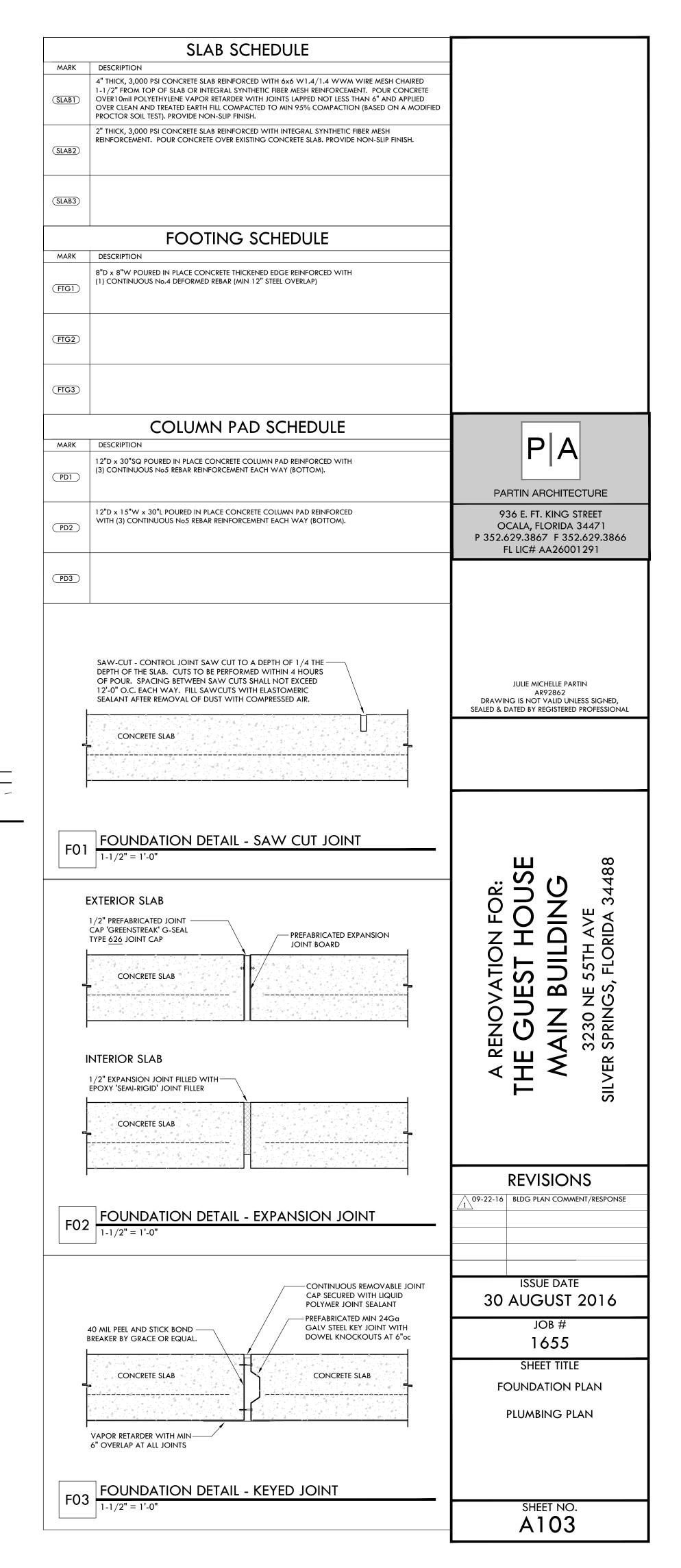


ALARM ANUNCIATOR PANEL









LECTRICAL LOAD CALCULATIONS	PAI	VEL SCHEDUL	E - PANEL A	
ENERAL LOADS (NEC 220.82(B)	CIRCUI	DESCRIPTION	DESCRIPTION	CIRCU
DTAL SQ FOOTAGE (8,000 SF X 3 VA) = 24,000 VA	1	LIGHTING	MASTER BEDROOM	2
PLIANCE CIRCUITS (4 X 1,500 VA) = 6,000 VA JNDRY CIRCUITS (2 X 1,500 VA) = 3,000 VA	3	LIGHTING	MASTER BEDROOM	4
NGE (1 RANGE X 10,000 VA) = 10,000 VA YER (1 DRYER X 8,000 VA) = 8,000 VA	5	LIGHTING	MASTER BATH	6
PLIANCES FASTENED IN PLACE (NEC SECTION 220.53)	7	BEDROOM No.1	SPA / TUB	8
TER HEATER $(1 \times 8,000 \text{ VA}) = 8,000 \text{ VA}$	9	BEDROOM No.2	BATH No.1	10
SC LOADS (NEC 220.82 B 4)	11	BEDROOM No.3	BATH No.2	12
AC (1 X 60A X 1.732 X 240V) = 14,400 VA II SPLIT No.1 (1 X 15A X 1.732 X 240V) = 3,600 VA	13	LIVING ROOM	BATH No.3	14
VI SPLIT No.2 (1 X 15A X 1.732 X 240V) = 3,600 VA VI SPLIT No.3 (1 X 15A X 1.732 X 240V) = 3,600 VA	15	OFFICE	WASHER	16
	17	FAMILY ROOM	DRYER	18
ATING AND COOLING LOADS (NEC 220.82C) AC LOAD (12,000 VA X 100%) = 12,000 VA HEAT PUMPS NO SUPP (0 VA X 100%) = 0 VA HEAT PUMPS (0 VA X 100%) = 0 VA	19	LIVING ROOM	DRYER	20
	21	NEW BEDROOMS	EXTERIOR LIGHTS	22
PLEMENTAL HEAT (0 VA X $65\%$ ) = 0 VA ELECTRIC SPACE (0 VA X $65\%$ ) = 0 VA	23	ΡΑΤΙΟ	DINING	24
5 THAN 4 SEPARATELY CONTROLLED UNITS	25	FOYER	KITCHEN	26
SPACE HEATING (30,000 VA X 40%) = 12,000 VA RE THAN 4 SEPARATELY CONTROLLED UNITS	27	FRIG	KITCHEN	28
SPACE HEATING (0 VA X 100%) = 0 VA NTINUOUS AT THE FULL NAMEPLATE VALUE	29	MINI SPLIT No.1	MICRO	30
CEST HEATING OR COOLING LOAD = 12,000 VA	31	MINI SPLIT No.1	RANGE	32
,	33	MINI SPLIT No.2		34
JTRAL LOAD (NEC 220.61) AL SQUARE FOOTAGE (8,000 SQ FT X 3 VA) = 24,000 VA	35	MINI SPLIT No.2		36
LIANCE CIRCUITS (4 X 1,500 VA) = 6,000 VA NDRY CIRCUITS (2 X 1,500 VA) = 0 VA	37	MINI SPLIT No.3		38
AL CONNECTED NEUTRAL LOAD = 33,000 VA	39	MINI SPLIT No.3		39
,	41			40
T 3,000 VA @ 100% (3,000 VA X 1.00) = 3,000 VA 0 - 120,000 VA @ 35% (30,000 VA X 0.35) = 10,500 VA R 120,000 VA @ 25% (0 VA X 0.25) = 0.0 VA TOTAL = 13,500 VA				
GE DEMAND (NEC TABLE 220.55 COLUMN C) 6 OF TABLE 220.55 (8,000 VA X 0.70) = 5,600 VA				

DRYER DEMAND (NEC TABLE 220.54) 70% OF TABLE 220.54 (8,000 VA X 0.70) = 5,600 VA

UNBALANCED MISC LOADS = 0 VA

NEUTRAL LOAD VA = 24,700 VA

NEUTRAL LOAD (24,700 VA / 240V) = 103A FURTHER DEMAND FACTOR (NEC 220.61(B)(2)) FIRST 200A AT 100% (103A x 1.00) = 103A

REMAINDER AT 70% (0 VA X 0.70) = 0A MINIMUM NEUTRAL CONDUCTOR AMPACITY = 103A

TOTAL KVA TOTAL GENERAL LOAD = 84,200 VA FIRST 10 KVA AT 100% = 10,000 VA REMAINDER OF LOAD AT 40% = 29,680 VA

SUB-TOTAL GENERAL LOAD = 39,680 VA LARGEST HEATING OR COOLING LOAD = 12,000 VA

TOTAL KVA = 51,680 VA

TOTAL AMPS TOTAL AMPS (51,680 VA / 240V) = 215A FUTURE AMPS (0%) = 0A

DESIGN AMPS = 215A

VOLTAGE DROP CALCULATIONS (2 X 10'-0"L X 0.0605R X 215.0A / 1,000) = 0.3VD (0.3 VD / 240 X 100) = 0.1% VD

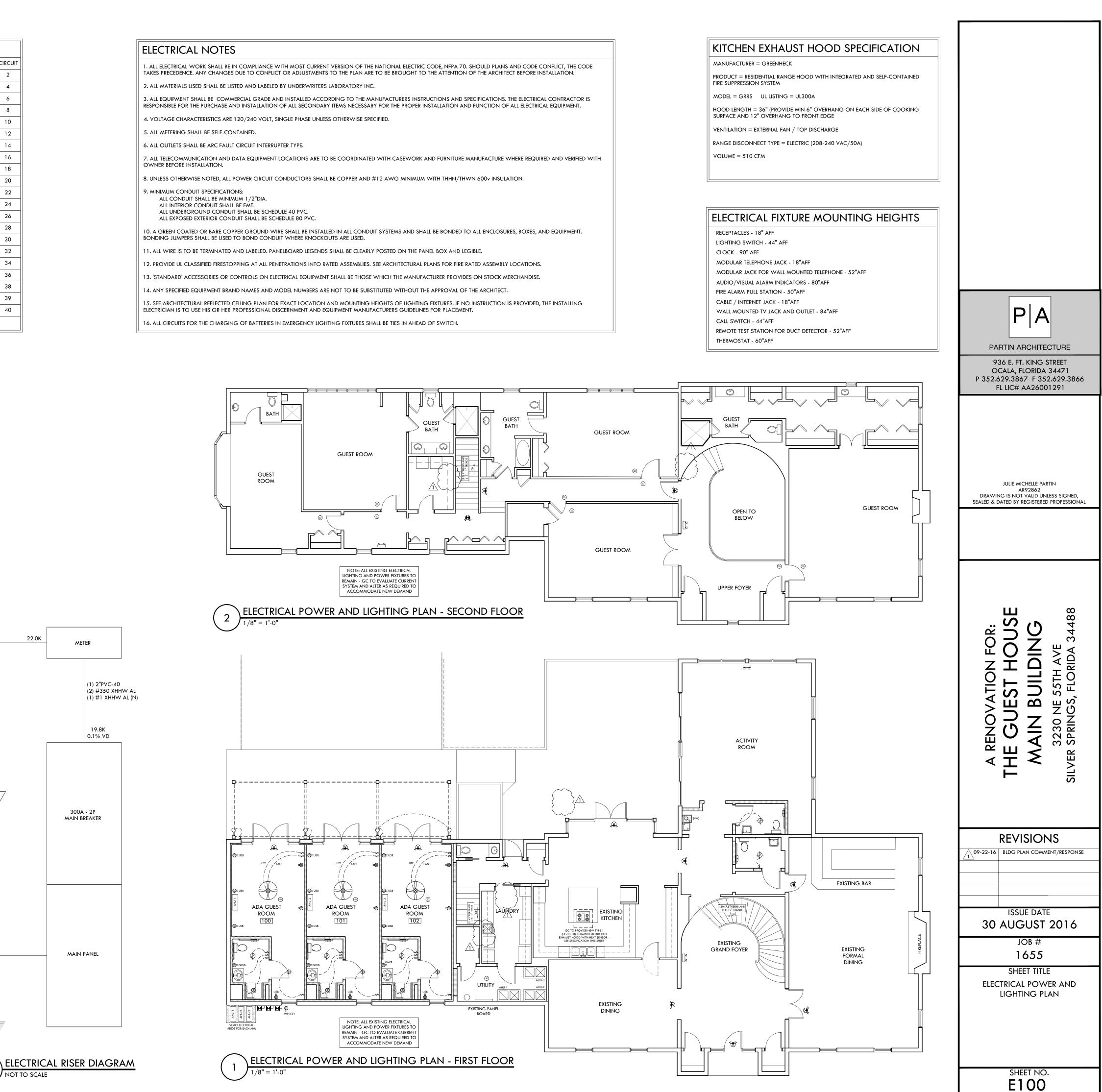
FAULT CURRENT CALCULATIONS ((22,000 AFC X 1.00 UA) / 0 MC) = 22,000 AFC (2 X 10'-0"L X 22,000 AFC) / (16,813C X 1N X 240V) 0.109 CF (1) / (1+0.109CF) = 0.902CM (22,000AFC X 0.902CM) = 19,844 CLC

ELECTRICAL	PLAN LEGEND (NOT ALL ARE	USED)	
$\Rightarrow$	RECEPTACLE - 110v DUPLEX	\$	SINGLE POLE TOGGLE SWITCH
$\Rightarrow$	RECEPTACLE - 110v QUAD	3 \$	3-WAY TOGGLE SWITCH
	RECEPTACLE - 110v DUPLEX WITH USB CHARGING	1.0	
WP =	RECEPTACLE, WEATHERPROOF - 110v DUPLEX	<sup>4</sup> \$	4-WAY TOGGLE SWITCH
GFCI	RECEPTACLE, GROUND FAULT CIRCUIT - 110v DUPLEX	<sup>R</sup> \$	ADJUSTABLE DIMMER SWITCH
$\exists \ominus$	RECEPTACLE - 110v FLUSH IN FLOOR	ЪЮ	WALL MOUNTED LIGHT SCONCE
=	RECEPTACLE - 110v FLUSH IN CEILING	$\oplus$	SURFACE MOUNTED LIGHT FIXTURE
$\Rightarrow$	RECEPTACLE - 220V	(R)	RECESSED CAN LIGHT FIXTURE
۲	SPECIAL PURPOSE CONNECTION	ĸ	RECESSED CAN LIGHT FIXTURE
	DISCONNECT	WP (R)	RECESSED CAN LIGHT FIXTURE - WATERPROOF
5-4	FLUSH MOUNTED PANELBOARD CABINET	$\ominus$	RECESSED EYEBALL LIGHT FIXTURE
	MOUNTED 6'-6" AFF TO CENTER		TRACK LIGHTING WITH ADJUSTABLE FIXTURES
M	WATT HOUR METER	÷	EXTERIOR FLOOR LIGHT FIXTURE - SWITCHED
	EMERGENCY LIGHT (2 LAMP) WITH BATTERY BACKUP	<m></m>	
$\otimes$	INTERNALLY ILLUMINATED LED EXIT LIGHT WITH DIRECTIONAL ARROW AND BATTERY BACKUP		EXTERIOR FLOOR LIGHT FIXTURE - MOTION ACTUATED
$\mathbb{V}^{\mathbb{V}}$	INTERNALLY ILLUMINATED LED EMERGENCY EXIT LIGHT / EMERGENCY LIGHT COMBO WITH BATTERY BACKUP	GR	EXTERIOR PATH LIGHT FIXTURE
			SUSPENDED FLUORESCENT LIGHT FIXTURE
	CEILING MOUNTED FAN	$\bigcirc$	EXHAUST FAN - SEE MECHANICAL PLAN FOR CFM REQUIREMENTS
		-	EXHAUST FAN / LIGHT FIXTURE COMBO - SEE MECHANICAL PLAN FOR CFM REQUIREMENTS
		DB 🗌	DOOR BELL CONNECTION
	CEILING MOUNTED FAN WITH INTEGRATED LIGHT FIXTURE		DOOR CHIME

 $\overline{}$ 

NOT TO SCALE

ALL INTERIOR CONDUIT SHALL BE EMT.



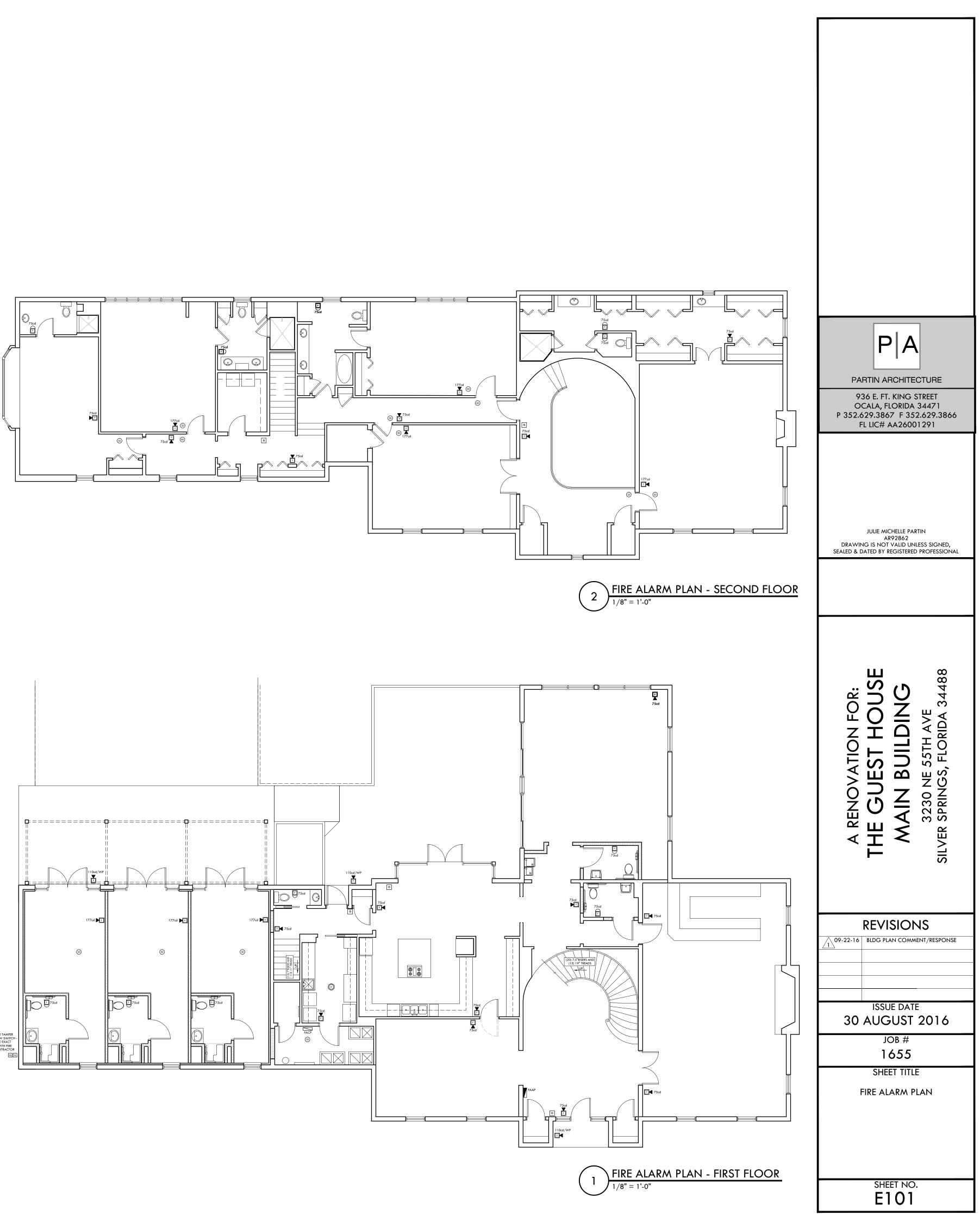
ANEL ID - 5	808							STAND-BY H	OURS = 24	
MODEL No. ·	- 5808 ADD 24VDC FIRE ALARM C	ONTROL	PANEL (SILE	NT KNIGHT	ALARM) ALARM MINUTES = 5					
OCATION -	UTILITY ROOM				DERATING FACTOR = 1.2					
MAX NAC C	URRENT = 3.0A / MAX PANEL CUR		6.0A					VOLTAGE DR	OP WARNING	THRESHOLD = 20%
CIRCUIT	CIRCUIT NAME	QTY	CURREN	T DRAW	WIRE AWG	OHMS / 1000FT	LENGTH (FT) ONE-WAY	ACTUAL OHMS	VOLTS AT EOL	PERCENT DROP
			STANDBY	ALARM						
5808	5808 CTRL PANEL	1	0.170	0.365	314 SOLID					
SK	PHOTO, PHOTO-T, PHOTOR	13	0.004	0.004						
SK	ION		0.000	0.000						
SK	HEAT, HEAT-HT, ROR		0.000	0.000						
SK	BEAM, BEAM-T		0.000	0.000						
SK	DUCT		0.000	0.000						
SK	ACCLIMATE		0.000	0.000						
SK	FIRE-CO		0.000	0.000						
SK	CONTROL		0.000	0.000						
SK	CONTROL-6		0.000	0.000						
SK	RELAYMON-2		0.000	0.000						
SK	MONITOR, MINIMON	3	0.001	0.001						
SK	MONITOR-2		0.000	0.000						
SK	MONITOR-10		0.000	0.000						
SK	PULL-SA, PULL-DA	8	0.003	0.003						
SK	RELAY		0.000	0.000						
SK	RELAY-6		0.000	0.000						
SK	ZONE		0.000	0.000						
SK	ZONE-6		0.000	0.000						
SK	ISOLATOR MODULE		0.000	0.000						
B224BI	ISOLATOR BASE		0.000	0.000						
B200SR	SOUNDER BASE		0.000	0.000						
B200S	INTELLIGENT SOUNDER BASE		0.000	0.000						
B200SR-LF	LOW FREQ SOUNDER BASE		0.000	0.000						
B200S-LF	LOW FREQ SOUNDER BASE		0.000	0.000						
B224RB	RELAY BASE		0.000	0.000						
RTS151	MAGNETIC REMOTE TEST		0.000	0.000						
RTS151KEY	KEY ACTIVATED TEST		0.000	0.000						
RA100Z	REMOTE LED		0.000	0.000						
5860		1	0.020	0.025						
5824	SERIAL / PARALLEL MODULE		0.000	0.000						
5496	POWER EXPANDER		0.000	0.000						
5895XL	POWER EXPANDER	1	0.010	0.010						
5865-4	LED ANNUNCIATOR (4G)	· ·	0.010	0.000						
5865-3	LED ANNUNCIATOR (3G)		0.000	0.000						
5880	LED DRIVER MODULE		0.000	0.000						
5883	RELAY MODULE		0.000	0.000	#14 SOLID	2.52	292	1.47	17.05	16.43%
NAC No1	NOTIFICATION APPL CIRCUIT		0.000	2.278	#14 SOLID #14 SOLID	2.52	292	1.29	17.03	11.20%
NAC No1	NOTIFICATION APPL CIRCUIT		0.000	1.778	#14 SOLID #14 SOLID	2.52	200	0.00	20.40	0.00%
NAC No2			0.000	0.000		2.52		0.00	20.40	0.00%
			0.000	0.000	#14 SOLID	2.32		0.00	20.40	0.00%
NAC No4										
			0.208	4.464						
			24	0.083			S / 60 = 5MIN			
			4.993	0.372	TOTAL ALAF	km ah requ	IIKED			
			5.3							
	MULTIPLY BY THE DERATING F	ACTOR	1.2	20						

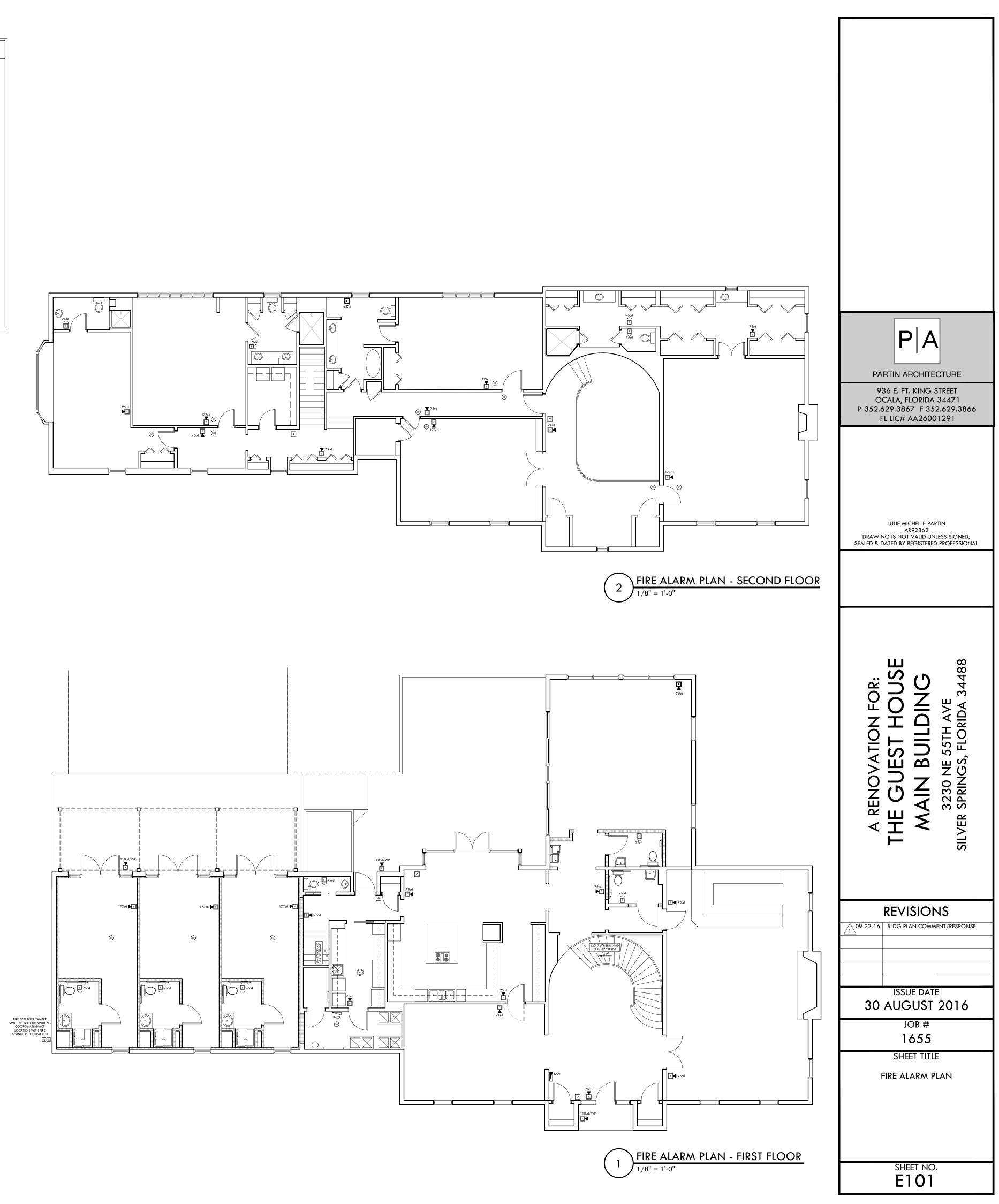
PANEL ID - 5	495		STAND-BY HOURS = 24							
MODEL No.	- 5495 24 VDC POWER EXPANDER	9SILEN	I KNIGHT AL	ARMS)	ALARM MINUTES = 5					
LOCATION -	UTILITY ROOM							DERATING F	ACTOR = 1.2	
MAX NAC C	URRENT = 3.0A / MAX PANEL CUR	RENT =	6.0A					VOLTAGE D	ROP WARNING	G THRESHOLD = 20
CIRCUIT	CIRCUIT NAME	QTY	CURREN'	T DRAW	WIRE AWG	OHMS / 1000FT	LENGTH (FT) ONE-WAY	ACTUAL OHMS	VOLTS AT EOL	PERCENT DROP
			STANDBY	ALARM						
5495	5495 PWR MODULE	1	0.075	0.205	#14 SOLID					
NAC No1	5495 CIRCUIT 1		0.000	1.582	#14 SOLID	2.52	288	1.45	18.10	11.26%
NAC No2	5495 CIRCUIT 2		0.000	1.424	#14 SOLID	2.52	227	1.14	18.77	7.99%
NAC No3	5495 CIRCUIT 3		0.000	0.000	#14 SOLID	2.52		0.00	20.40	0.00%
NAC No4	5495 CIRCUIT 4		0.000	0.000	#14 SOLID	2.52		0.00	20.40	0.00%
AUX	5495 AUX POWER OUT		0.000	0.000	#14 SOLID	2.52		0.00	20.40	0.00%
	TOTAL STANDBY CURRENT (AMPS)			3.211	TOTAL ALARM CURRENT AMPS					
	STANDBY TIME IN I	24	0.083	ALARM TIME IN MINUTES / 60 = 5MIN						
TOTAL STANDBY AH REQUIRED			1.800	0.268	TOTAL ALARM AH REQUIRED					
TOTAL COMBINED AH REQUIRED			2.0	)7						
MULTIPLY BY THE DERATING FACTOR			1.2	20						
/	MINIMUM BATTERY AMPHOURS REC	QUIRED	2.4	18						

# FIRE ALARM PLAN LEGEND

O MANUAL FIRE ALARM PULL STATION F EMERGENCY VISUAL INDICATOR (STROBE) EMERGENCY AUDIO/VISUAL INDICATOR (HORN/STROBE COMBO) (WP = WEATHERPROOF) FS FIRE ALARM SPEAKER H HEAT DETECTOR CEILING MOUNTED PHOTOELECRIC SMOKE/CARBON MONOXIDE DETECTOR WITH POWER CONNECTION AND BATTERY BACKUP SD AREA OF REFUGE CALL BOX KB FIRE DEPARTMENT KNOX BOX (KEY STORAGE)

FACP	FIRE ALARM MASTER CONTROL PANEL
FAAP	FIRE ALARM ANUNCIATOR PANEL





# ALL PLUMBING SYSTEM SCHEMATIC DESIGNS

