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Director

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**BUILDING CHARLESTON COUNTY SERVICES**  
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### Residential Electrical Calculation Form

To ensure that the proper service has been provided for this residential construction **either** complete this form and submit it with the plans **or** verify the following information is on the electrical plans

**Project address**

**NOTE:** if appliance is gas / propane insert -0- quantity

Insert number	Per IRC Table E3808.2	Total in watts (Volt/ amps)
	Sq/ft x 3 VA (Watts)	
	Small Appliance @ 1500 VA (each)	
	Dishwasher/ garbage 1500 VA	
	Laundry Circuit @ 1500 VA	
	Dryer- (default 5,000 VA)	
	Free standing range (default 5,000 VA)	
	Cooktop (default 5,000 VA)	
	Wall oven (default 5,000 VA each)	
	Water heater (default 4,500 VA each)	
	Sub-total	
	First 10,000 VA @ 100%	
	Remaining Balance over 10, 000 VA @ 40%	
	HVAC #1 load (VA) 100%	
	Heat strips #1 @ 65%	
	HVAC # 2 load (VA) 100%	
	Heat strips # 2 @ 65%	
	Pool Pump watts (VA) 100%	
	Total	
	Divide total by 240 volts =	
	Service Size to be installed	

Recommended service sizing per IRC E3603.1.1 & E3603.4

**Copper**

100 Amp #4 & # 8 grounding  
150 amp # 1 & # 6 grounding  
200 amp # 2/0 & # 4 grounding

**Aluminum**

100 Amp #2 & # 6 grounding  
150 amp # 2/0 & # 4 grounding  
200 amp # 4/0 & # 2 grounding

**E3608**

**Grounding Electrode System**

**Note:** Which will be connected to create 25 ohms or less of resistance

- 2 ground rods
- footing steel (required)
- footing steel & 1 ground rod
- metal underground water pipe
- other \_\_\_\_\_

Only one grounding system per building

**Completed by** \_\_\_\_\_

**Date** \_\_\_\_\_



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