

**CITY OF AVON LAKE BUILDING DEPARTMENT**  
 750 Avon Belden Road, Avon Lake, OH 44012 (440)930-4102 (440)930-4111 FAX

**ELECTRIC LOAD CALCULATIONS – SINGLE & MULTI FAMILY DWELLINGS & ADDITIONS**

Electrical Contractor/Owner \_\_\_\_\_ Date: \_\_\_\_\_

Contractor/Owner Phone Number ( ) \_\_\_\_\_ Approved By: \_\_\_\_\_

Job Address and/or Sub Lot \_\_\_\_\_ Approved Date: \_\_\_\_\_

Existing Home \_\_\_\_\_ Existing Service Size \_\_\_\_\_ Ampacity of New Load \_\_\_\_\_ New Service Required \_\_\_\_\_

Describe work to be performed, i.e., Panel change, adding lighting or receptacles \_\_\_\_\_

- (1) General Lighting Load (Table 220-12) \_\_\_\_\_ Square foot x 3 va = \_\_\_\_\_ va
- (2) Small Appliance Load (Table 220-16) \_\_\_\_\_ Circuits x 1,500 va = \_\_\_\_\_ va
- (3) Laundry Load (Table 220-16) \_\_\_\_\_ Circuits x 1,500 va = \_\_\_\_\_ va
- (4) Add Line 1,2,3 Lighting, Small Appliance and Laundry Room Loads = \_\_\_\_\_ va
- (5) First 3,000 va x 35% = \_\_\_\_\_ va
- (6) Subtract 3,000 from Line 4 = \_\_\_\_\_ Remaining va x 35% = \_\_\_\_\_ va
- (7) Add Lines 5 & 6 Total Lighting, Appliance and Laundry Loads = \_\_\_\_\_

**LARGE APPLIANCE LOADS:**

**QTY**

- (8) Electric Range (Table 220-55) \_\_\_\_\_ x \_\_\_\_\_ VAX 80% = \_\_\_\_\_ VA
- (9) Electric Dryer (Table 220-54) \_\_\_\_\_ x \_\_\_\_\_ VAX 100% = \_\_\_\_\_ VA
- (10) Electric Hot Water Heater \_\_\_\_\_ x \_\_\_\_\_ VAX 75% = \_\_\_\_\_ VA
- (11) Dishwasher \_\_\_\_\_ x \_\_\_\_\_ VAX 75% = \_\_\_\_\_ VA
- (12) Disposal \_\_\_\_\_ x \_\_\_\_\_ VAX 75% = \_\_\_\_\_ VA
- (13) Electric Heating Unit (Article 220-51) \_\_\_\_\_ x \_\_\_\_\_ VAX 100% = \_\_\_\_\_ VA
- (14) Air Conditioning Unit (Article 220-82) \_\_\_\_\_ x \_\_\_\_\_ VAX 100% = \_\_\_\_\_ VA
- (15) Heat Pump \_\_\_\_\_ x \_\_\_\_\_ VAX 100% = \_\_\_\_\_ VA
- (16) Gas Furnace Motor \_\_\_\_\_ x \_\_\_\_\_ VAX 100% = \_\_\_\_\_ VA
- (17) Other Large Appliances \_\_\_\_\_ x \_\_\_\_\_ VAX 25% = \_\_\_\_\_ VA
- (18) Other Large Appliances \_\_\_\_\_ x \_\_\_\_\_ VAX 25% = \_\_\_\_\_ VA
- (19) Sump Pump \_\_\_\_\_ x \_\_\_\_\_ VAX 100% = \_\_\_\_\_ VA
- (20) Add Lines 8-19 Total Large Appliance Loads = \_\_\_\_\_ va
- (21) Add Lines 7 & 20 For Total Combined Loads = \_\_\_\_\_ va

Convert TOTAL VA to Ampers: TOTAL VA (Line 21)  
 (22) \_\_\_\_\_ 240 Volt TOTAL LOAD IN AMPARES = \_\_\_\_\_ AMPS

**\*IF OVER 200 AMPS:** Take the First 200 Amps from (Line 20) X 100% = 200 Amps

(23) Subtract 200 AMPS from Line 20 = \_\_\_\_\_ X 70% = \_\_\_\_\_

(24) FIRST 200 AMPS PLUS LINE 21 = \_\_\_\_\_ TOTAL AMPS

PHASE CONDUCTOR SIZE & TYPE \_\_\_\_\_ NEUTRAL CONDUCTOR SIZE \_\_\_\_\_ SERVICE SIZE \_\_\_\_\_

(SIGN) \_\_\_\_\_ DATE \_\_\_\_\_