

| RESIDENTIAL LOAD CALCULATIONS                   |            |  |
|-------------------------------------------------|------------|--|
| CALCULATED LOADS NEC 120.84                     |            |  |
| TOTAL SQ FOOTAGE ( 4,500 SQ FT X 2 VA ) =       | 9,000 VA   |  |
| APPLIANCE CIRCUITS ( 6 X 1,500 VA ) =           | 9,000 VA   |  |
| LAUNDRY CIRCUITS ( 3 X 1,500 VA ) =             | 4,500 VA   |  |
| RANGES - NEC 120.84(C)(3)(B)                    |            |  |
| RANGES ( 3 X 3 X 12,000 VA ) =                  | 36,000 VA  |  |
| DRYERS - NEC 120.84(C)(3)(C)                    |            |  |
| DRYERS ( 3 X 5,000 VA ) =                       | 15,000 VA  |  |
| WATER HEATERS - NEC 120.84(C) (3)(D)            |            |  |
| WATER HEATERS ( 3 X 2,500 VA ) =                | 7,500 VA   |  |
| HEATING OR COOLING LOADS - NEC 120.84(C) (3)(A) |            |  |
| HEATING & COOLING ( 3 X 3 X 6,000 VA ) =        | 18,000 VA  |  |
| EV CHARGERS - NEC 120.84(C)(3)(A)               |            |  |
| EV CHARGERS ( 3 X 7,200 VA ) =                  | 21,600 VA  |  |
| MISC LOADS                                      |            |  |
|                                                 | 1,800 VA   |  |
| TOTAL CONNECTED LOAD                            | 122,400 VA |  |
| CONNECTED AMPS ( 122,400 VA ÷ 240 V ) =510 A    |            |  |
| DEMAND FACTOR NEC TABLE 120.84(C) = 45%         |            |  |
| ADJUSTED AMPS (510 A X 0.45 ) =                 | 230 A      |  |
| HOUSE PANEL LOAD                                | 59 A       |  |
| SUBTOTAL                                        | 289 A      |  |
| FUTURE FACTOR ( 289 A X 0.00 ) =                | 0 A        |  |
| SERVICE SIZE                                    | 289 A      |  |

|                      |                     |
|----------------------|---------------------|
| PROJECT NAME         | SAMPLE PROJECT      |
| ADDRESS              | 123 MAIN ST         |
| CITY/STATE/ZIP       | SOMEWHERE, CA 95620 |
| CODE TEAR            | 2026                |
| PHASE                | 1                   |
| HIGH VOLTAGE         | 240                 |
| LOW VOLTAGE          | 120                 |
| MAIN BREAKER         | YES                 |
| MINIMUM SERVICE SIZE | 100                 |
| HOUSE PANEL          | YES                 |
| VOLTAGE DROP CALCS   | YES                 |
| FAULT CURRENT CALCS  | YES                 |
| SHOW UFER GROUND     | YES                 |
| DWELLING UNITS       | 3                   |

KEY  
A - Amps  
V - Volts  
VA - Volt Amps

| NON RESIDENTIAL LOADS                    |  |       |      |       |    |
|------------------------------------------|--|-------|------|-------|----|
|                                          |  | L1    |      | L2    |    |
| CAI CALCULATED LOAD                      |  | 6,200 | VA 5 | 4,800 | VA |
| CALCULATED LOAD WITH DEMAND FACTORS      |  |       |      |       |    |
| GENERAL LOAD                             |  | 0     | VA   | 0     | VA |
| RECEI RECEPTACLE LOAD (NEC TABLE 120.47) |  |       |      |       |    |
| 1ST 10,000W                              |  | 2,800 | VA   | 1,400 | VA |
| CONTINUOUS LOAD (NEC 215.2)              |  |       |      |       |    |
| PLUS 25%                                 |  | 1,400 | VA   | 1,400 | VA |
|                                          |  | 350   | VA   | 350   | VA |
| MOTOR LOAD (NEC 430.24)                  |  |       |      |       |    |
| PLUS 25% OF LARGEST MOTOR                |  | 2,000 | VA   | 2,000 | VA |
|                                          |  | 500   | VA   | 500   | VA |
| 11 - KITCHEN LOADS (NEC TABLE 120.56)    |  |       |      |       |    |
| L1 ( 0 X 0.65 ) =                        |  | 0     | VA   |       |    |
| L2 ( 0 X 0.65 ) =                        |  |       |      | 0     | VA |
| TOTAL BALANCED LOAD (1-PHASE)            |  | 5,650 | VA   | 5,650 | VA |
| TOTAL UNBALANCED LOAD (1-PHASE)          |  | 1,400 | VA   | 0     | VA |
| LINE AMPS BALANCED (1-PHASE)             |  |       |      |       |    |
|                                          |  | 47.1  | A    | 47.1  | A  |
| LINE AMPS UNBALANCED (1-PHASE)           |  |       |      |       |    |
|                                          |  | 11.7  | A    | 0.0   | A  |
| NON RESIDENTIAL LOAD                     |  | 58.8  | A    | 47.1  | A  |