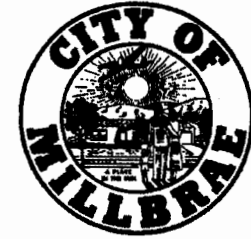
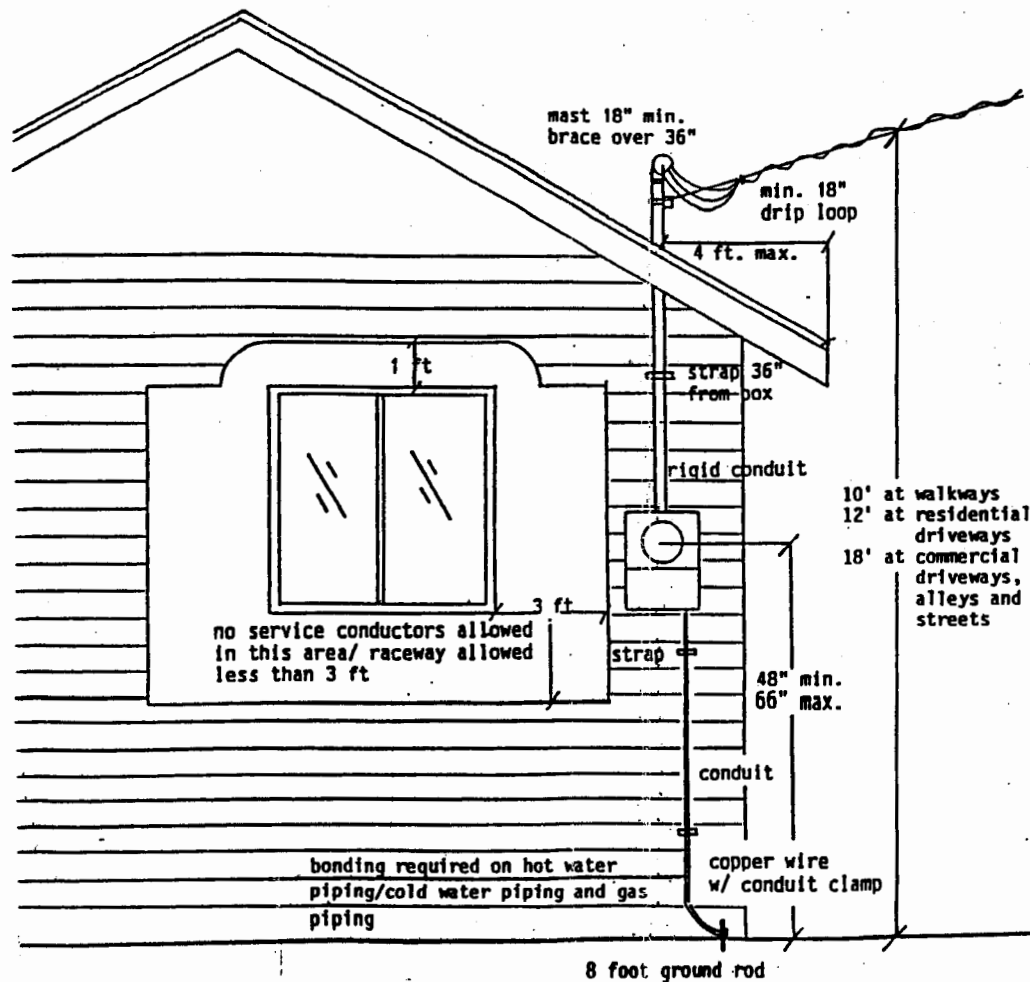


Examples of electrical service requirements for residential applications only.



Permit Requirements for a Residential Electrical Service



City of Millbrae

Community Development
Department

Building Division

621 Magnolia Ave.
Millbrae, Ca. 94030

Building Division
650-259-2330

Fax 650-697-2657

How to Apply for a permit to replace an electrical service

What kinds of approvals / permits do I need to replace an electrical service ?

Permits are required to replace an electrical service. You will need to submit a plan showing how the service is to be constructed.

General guidelines

Service riser

- a) Use rigid steel or aluminum (EMT is not allowed)
- b) 2" minimum for aluminum conduit or 1-1/4" rigid galvanized steel conduit
- c) 18" minimum height above roof
- d) 36" maximum height above roof without a brace
- e) Weather head to be 1' above or 3' to side of any window

Conductors

- a) Neutral must be identified (white or gray)
- b) Install corrosion inhibitor on all aluminum connections

Grounding Electrode Conductor System (GEC)

- a) Grounding conductors and neutral conductors to be bonded together at main service only
- b) 3/4" x 8' galvanized pipe ground rod or 1/2" x 8' copper jacketed ground rod
- c) Grounding electrode conductor - protection from damage:
 - 1) Must be securely fastened to building construction
 - 2) If #8 wire or subject to physical damage must be in conduit

Bonding

- a) All metal piping systems to be bonded
- b) Jumper from cold water to hot water piping and to Gas Line typical at water heater
- c) Bond wire to be the same size as Grounding Electrode Conductor.

Meter / Panel

- a) Meter height above grade 66" maximum and 48" minimum
- b) 78" maximum height to main disconnect
- c) Label all breakers
- d) Recessed panels to be in meter box 20" x 11" x 36" minimum

No Condulets (LB, LL, LR, etc.) shall be used on the main service entrance between the weather head and the meter. Without permission of the Building Official.

MINIMUM SERVICE REQUIREMENTS

100 AMP SERVICE

Size of Conductor 4CU or 2AL
Size of Ground 8CU or 6AL
Size of Riser 1-1/4" Steel or 2" Aluminum

125 AMP SERVICE

Size of Conductor 2CU or 1/0 AL
Size of Ground 8CU or 6AL
Size of Riser 1-1/4" Steel or 2" Aluminum

150 AMP SERVICE

Size of Conductor 1 CU or 2/0 AL
Size of Ground 6 CU or 4 AL
Size of Riser 1-1/2" Steel or 2" Aluminum

200 AMP SERVICE

Size of Conductor 2/0 CU or 4/0 AL
Size of Ground 4 CU or 2 AL
Size of Riser 1-1/2" Steel or 2" Aluminum