



City of El Cajon
Building and Fire Safety Division
 200 E. Main St.
 El Cajon, CA 92020
 Phone: (619) 441-1726, 1727

Residential Electric Meter Installation

1. Weather Head	Weather head sized in accordance with riser size. Conductors passing over the overhang only may be a minimum of 18 inches above the overhang. Conductors passing over the roof must be 3 feet above the roof surface if the roof is 4 in 12 pitch or greater. 8 foot clearance is required for roof pitch of under 4 in 12. 10 foot clearance is required at ground level and 12 foot over driveways.
2. Flashing	Flashing must be installed on all roof penetrations
3. Riser and riser attachment to building.	Riser length is minimum 5 feet. Riser size must be: 1-1/4 inch min. for up to # 1 copper conductor. 1-1/2 inch min. for up to # 2/0 copper conductor. Riser must be securely supported within 12 inches of the plate line and 12 inches of the service panel using 1/4 lag or toggle bolts.
4. Service Entrance Conductors. Overhead & Underground installations shown.	For overhead service drops a min. 12 foot clearance above grade level is required. Required size of Service entrance conductors (and recommended size for neutral): #4 copper for 100 Amp service. #1 copper for 150 Amp service. 2/0 copper for 200 Amp service. Required Size of neutral (minimum): #8 for Service entrance size #2 or smaller #6 for Service entrance size up to 1/0 #4 for Service entrance size up to 3/0
5. Neutral Bus bar	Neutral bus bar must be grounded to the service panel. Neutral service entrance conductor, neutral circuit conductors, grounding electrode conductor, and ground conductors must be attached to the neutral bus bar.
6. Circuit Conductors	Circuit shall have hot conductor protected by circuit breaker sized as follows: #14 conductor – 15 Amp Breaker #12 conductor – 20 Amp Breaker #10 conductor – 30 Amp Breaker # 8 conductor – 40 Amp Breaker If terminating in the main service panel both the neutral and ground conductor shall attach to the neutral bus bar. If terminating in a sub-panel the neutral and ground shall terminate at separate neutral and ground bus bars.
7. Main Disconnect	A main disconnect is required for 6 or more breakers
8. Grounding Electrode & electrode Conductor	Electrode shall be a concrete encased electrode (ufer) , or a driven copper ground rod 5/8 diameter by 8 foot long. Electrode conductor must be the same size as the required neutral conductor size. Electrode conductors smaller than #6 or where subject to physical damage must be protected by conduit. When metal conduit is used it shall be bonded to the electrode at the bottom and to the service panel at the top. The electrode shall terminate at the neutral bus bar.
9. Water Pipe Bond	A water pipe bond wire must be provided and sized as a grounding electrode conductor. The bond wire shall terminate at the neutral bus.

