



# County of Yuba

Community Development and Services Agency

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## MINIMUM REQUIREMENTS FOR RESIDENTIAL ELECTRICAL SERVICE ENTRANCE, GROUNDING AND BONDING CONDUCTORS.

IT IS *RECOMMENDED* THAT THE ELECTRIC UTILITY PROVIDER BE CONTACTED PRIOR TO THE INSTALLATION OF A NEW OR REPLACEMENT ELECTRIC SERVICE. IT IS ALSO *RECOMMENDED* THAT A STATE CERTIFIED AND LICENCED ELECTRICAL CONTRACTOR BE OBTAINED FOR ANY ELECTRICAL INSTALLATIONS, ALTERATIONS OR REPAIRS.

RATINGS FOR SERVICE ENTRANCE CONDUCTORS ARE BASED USING CONDUCTOR TYPES: RH - RHH - RHW - THHW - THWN - THHN - XHHW - USE, AND CONDUCTOR SIZES PER THE CALIFORNIA ELECTRIC CODE.

SERVICE RATING IN AMPS	ALUMINIUM AND COPPER CLAD	COPPER AWG
100	# 2	# 4
125	1/0	# 2
150	2/0	# 1
200	4/0	2/0

MINIMUM GROUNDING ELECTRODE CONDUCTOR AND BONDING CONDUCTOR SIZES AND RATINGS ARE BASED ON THE CALIFORNIA ELECTRIC CODE.

SERVICE RATING IN AMPS	SIZE OF COPPER GROUNDING ELECTRODE CONDUCTOR	SIZE OF WATER BONDING CONDUCTOR (COPPER)	SIZE OF GAS AND OTHER BONDING CONDUCTOR (COPPER)
100	# 8	# 8	# 8
125	# 8	# 8	# 8
150	# 6	# 6	# 8
200	# 4	# 4	# 4

PROTECTION OF GROUNDING ELECTRODE CONDUCTORS, AND BONDING CONDUCTORS.

- 1). # 8 GROUNDING CONDUCTORS SHALL BE IN RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, RIGID NONMETALLIC CONDUIT, ELECTRICAL METALLIC TUBING, OR CABLE ARMOR.
- 2). # 6 GROUNDING CONDUCTORS THAT ARE NOT EXPOSED TO PHYSICAL DAMAGE SHALL BE PERMITTED TO BE RUN ALONG THE SURFACE OF THE BUILDING CONSTRUCTION WITHOUT METAL COVERING OR PROTECTION WHERE IT IS SECURELY FASTENED TO THE CONSTRUCTION, OTHERWISE IT SHALL BE PROTECTED WITH ONE OF THE METHODS LISTED ABOVE FOR # 8 CONDUCTORS.
- 3). # 4 CONDUCTORS NEED NOT BE PROTECTED UNLESS EXPOSED TO SEVERE PHYSICAL DAMAGE.

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