

CITY OF MILPITAS

Building & Safety Department
455 E. Calaveras Blvd.
Milpitas, CA 95035
408-586-3240

www.ci.milpitas.ca.gov



LIGHTING, SWITCHES AND RECEPTACLES

1. PERMIT INFORMATION:

- A Building Permit may be issued only to a State of California Licensed Contractor or the Homeowner.
- Building Permits may be issued to a Homeowner for construction if that Homeowner indicates the intent to do his or her own work personally. If the inspection indicates the Homeowner is unable to perform the work satisfactorily, then a licensed contractor must perform the work.
- If the Homeowner is planning to hire workers, State Law requires the Homeowner to obtain Worker's Compensation Insurance. Proof of this insurance is required prior to inspection.

2. BUILDING REQUIREMENTS

- The repair of or installation of new lighting, switches or receptacles requires an electrical permit.
- All work must comply with the 2007 Building Code Standards (Building, Electrical, Mechanical, Plumbing and Energy) and the 2008 Milpitas Municipal Code.
- Equipment must be installed in accordance with the manufacturer's requirements.
- New lighting or receptacles added may not overload existing circuits.
- Branch circuits shall be designed in accordance with CEC Article 210.
- LIGHTING:
 - Exterior lighting shall be shielded to prevent glare or direct illumination on public streets or adjacent properties.
 - Outdoor lighting permanently mounted to the building shall be high efficacy fixtures (e.g. fluorescent) or controlled by a motion sensor with integral photocontrol.
 - If adding or replacing lighting in the kitchen, a minimum of 50% of the total rated lighting wattage (based on the maximum allowed for each fixture) shall be high efficacy fixtures (e.g. fluorescent), activated separately from any low efficacy lighting
 - If adding or replacing lighting in garages, laundry & utility rooms or bathrooms, the lighting shall be high efficacy fixtures (e.g. fluorescent) or be controlled with an occupant sensor with controls that do not allow the fixtures to be manually turned on or allow the fixtures to be always on
 - If adding or replacing lighting in other rooms (hallways, dining rooms, family rooms, living rooms and bedrooms), the lighting shall be high efficacy fixtures (e.g. fluorescent) or a controlled with an manual-on occupant sensor or a dimmer switch.
 - All fixtures (including exterior fixtures) installed in wet locations shall be marked "Suitable for Wet Locations. All fixtures installed in damp locations shall be marked "Suitable for Wet Locations" or "Suitable for Damp Locations".
 - Recessed lighting in insulated ceilings must be rated for direct insulation contact (IC), certified as airtight construction (AT), and must have a sealed gasket or caulking between the housing and ceiling to prevent the flow of heated or cooled air out of the living areas and into the ceiling cavity.

- Cord-connected fixtures, chain, cable or cord-suspended fixtures, lighting track, pendants, or ceiling-suspended (paddle) fans shall not be located within a zone measured 3 feet horizontally and 8 feet vertically from the top of the bathtub rim or shower stall threshold. This zone is all encompassing and includes the zone directly over the tub or shower stall. Other fixtures located in this zone shall be listed for damp locations, or wet locations if subject to shower spray.
- Fixtures installed in clothes closets shall comply with CEC Section 410.8.

RECEPTACLES:

- In every kitchen, family room, dining room, living room, parlor, library, den, bedroom, sunroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed so that no point along the floor line in any wall space is more than 6 feet, measured horizontally, from an outlet in that space. Wall space shall include the following:
 - Any wall 2 feet or more in width (including space measured around corners) and unbroken along the floor line by doorways, fireplaces, and similar openings.
 - The space occupied by fixed panels in exterior walls, excluding sliding panels.
 - The space afforded by fixed room dividers such as freestanding bar-type counters or railings.
 - Receptacles in floors shall not be counted as part of the required number of receptacle outlets unless located within 18 inches of the wall.
- Receptacles installed in the following locations must be GFI protected: Outdoors; garage; kitchen if outlet is serving countertop surfaces; laundry, utility and wet bar sinks if outlet is located within 6 feet of the outside edge of the sink; crawl spaces; and unfinished basements.
- New outlets (including receptacles, switches, lighting, and hard-wired smoke detectors) in bedrooms must be on circuits protected with a listed arc-fault circuit interrupter, combination type per CEC 210.12(B).
- See page 3 for a plan view of the location of dwelling unit receptacles in a typical room meeting the requirements of CEC Section 210.52(A).
- See Kitchen Remodel and Bathroom Remodel handouts for additional information.

Smoke alarms: When the value of the work exceeds \$1,000, smoke detectors must be installed if they do not exist as follows: in each sleeping room, at a point centrally located in the corridor or area giving access to each separate sleeping area, and on each story. In existing construction, detectors may be battery operated. See CBC Section 907.2.10 and the separate handout on Smoke Alarms for more information.

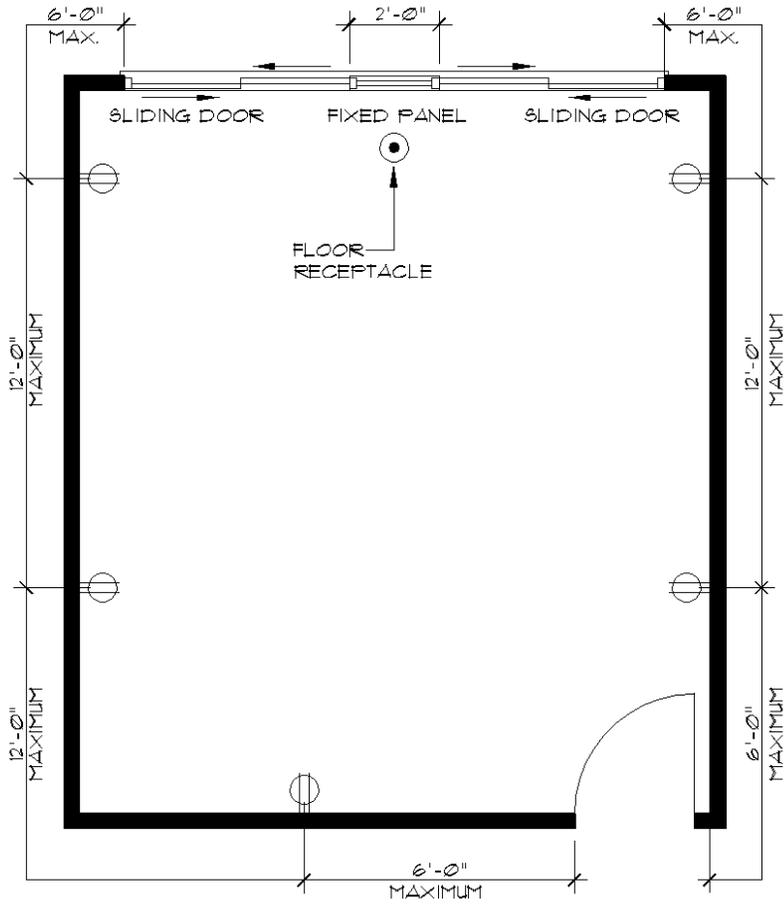
Spark arrester: When the value of the work exceeds \$1,000, a spark arrester must be installed on fireplace chimneys if one does not exist per MMC Section II-3-2.06. Spark arresters shall be constructed in conformance with CBC Section 2113.9.1 or 2802.1. See separate handout on Spark Arresters for more information.

3. INSPECTION PROCEDURES

At least two inspections are required. The rough inspection should be scheduled when the new fixtures are located, but before power is supplied to them AND before any wiring inside walls/ceilings are covered. The final inspection should be scheduled after all the work is complete. For each inspection, the Permit Card and the Approved Job Copy of the Drawings (if any) must be presented to the inspector. Permits expire 180 days after the last passed inspection.

4. QUESTIONS:

If you have any questions regarding your project contact the Building & Safety Department at (408) 586-3240.



SAMPLE RECEPTACLES SPACING

CITY OF MILPITAS

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ELECTRICAL PANEL

1. PERMIT INFORMATION:

- A Building Permit may be issued only to a State of California Licensed Contractor or the Homeowner.
- Building Permits may be issued to a Homeowner for construction if that Homeowner indicates the intent to do his or her own work personally. If the inspection indicates the Homeowner is unable to perform the work satisfactorily, then a licensed contractor must perform the work.
- If the Homeowner is planning to hire workers, State Law requires the Homeowner to obtain Worker's Compensation Insurance. Proof of this insurance is required prior to inspection.

2. BUILDING REQUIREMENTS

- The installation of a new electrical panel or modifications to an existing requires an electrical permit.
- All work must comply with the 2007 Building Code Standards (Building, Electrical, Mechanical, Plumbing and Energy), the 2008 Milpitas Municipal Code, and P.G.&E. installation standards.
- Equipment must be installed in accordance with the manufacturer's requirements.
- Disconnecting means shall be located according to CEC Section 230.70(A) and MMC Section II-6-2.03:
 - The service disconnecting means shall be installed at a readily accessible location either inside or outside of a building or structure or inside nearest the point of entrance of the service conductors.
 - Service disconnecting means shall not be installed in bathrooms.
 - Where a remote control sensing device(s) is used to actuate the service disconnecting means, the service disconnecting means shall be located in accordance with CEC Subsection 2307.70(A)(1).
 - The building main service disconnect and/or disconnects shall be installed on the first floor level of the building.
- New circuit breakers must be listed and approved for installation in the panel.
- The panel must be labeled.
- The new electrical panel must be installed in the same general location as the current electrical panel, otherwise plans must be submitted and approved and the permit obtained in person from the Permit Center, Building & Safety Department, 455 E. Calaveras Blvd.
- If the new electrical panel exceeds 200 amps, plans must be submitted and approved and the permit obtained in person from the Permit Center.
- Grounding and bonding of the electrical service is required when the panel is replaced. Grounding and bonding shall comply with Article 250 of the 2007 California Electric Code.
- In conformance with 2007 CEC Section 210.12(B), in addition to any requirements for new dwelling construction or additions containing bedrooms, listed arc-fault circuit interrupters, combination type, shall be installed when:
 - Any electrical service panel containing bedroom branch circuits is being replaced.
 - Any electrical (sub) panel containing bedroom branch circuits is being replaced.
 - Any alteration or extension of the electrical system branch circuits that supplies existing dwelling unit bedrooms.

- Smoke alarms:** When the value of the work exceeds \$1,000, smoke detectors must be installed if they do not exist as follows: in each sleeping room, at a point centrally located in the corridor or area giving access to each separate sleeping area, and on each story. In existing construction, detectors may be battery operated. See CBC Section 907.2.10 and the separate handout on Smoke Alarms for more information.
- Spark arrester:** When the value of the work exceeds \$1,000, a spark arrester must be installed on fireplace chimneys if one does not exist per MMC Section II-3-2.06. Spark arresters shall be constructed in conformance with CBC Section 2113.9.1 or 2802.1. See separate handout on Spark Arresters for more information.

3. INSPECTION PROCEDURES

- A minimum of two inspections are required, a utility release and a final. The utility release inspection should be scheduled when the new panel is installed and ready to be hooked by PG&E. A wire lath inspection is required for stucco repairs. A final inspection should be scheduled after all of the work is complete. For each inspection, the Permit Card and the Approved Job Copy of the Drawings (if any) must be presented to the inspector. Permits expire 180 days after the last passed inspection.

4. QUESTIONS:

- If you have any questions regarding your project contact the Building & Safety Department at (408) 586-3240.