

CITY OF MILPITAS

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

www.ci.milpitas.ca.gov



RESIDENTIAL RE-ROOF

1. PERMIT INFORMATION:

- The replacement or repair of more than One Square (100 SQ. FT.) of roofing material requires a permit.
- All changes in roofing materials (including color of material used) must be reviewed and approved by the Planning Division, (408) 586-3279.
- Homeowners Association:** If the property is regulated by a Home Owners Association, any exterior work must have written approval of the Association. It is the property owner's responsibility to obtain the approval.
- A Permit may be issued only to a State of California Licensed Contractor with the proper license classification or the Homeowner.
- If the work is performed by the Homeowner personally or by his/her workers, and an inspection indicates the work cannot be completed satisfactorily, then a licensed contractor must perform the work.
- If the Homeowner hires workers, State Law requires the Homeowner to obtain Worker's Compensation Insurance. Proof of this insurance is required prior to inspection.

2. INSTALLATION REQUIREMENTS:

- Building Codes:** All work must comply with the 2013 California Residential Code (CRC) or 2013 California Building Code, 2013 California Electrical Code (CEC), 2013 California Mechanical Code (CMC), 2013 California Plumbing Code (CPC), 2013 California Energy Code (CEnc), 2013 California Green Building Code and 2014 Milpitas Municipal Code (MMC).
- Roofing materials must be installed per the manufacturer's installation instructions and CRC Chapter 9. The manufacturer's instructions (usually printed on the bundle wrapper) or a current, valid and approved copy of the ICC or IAPMO Evaluation Report is required to be on site for the inspector.
- If the roof covering is not removed to the original deck, access to the attic may be required for an under roof check of the structural system, the condition of the roof deck and installation of the radiant barrier.
- At the time of the pre-roofing (tear off) inspection, all damaged decking and supporting members must have been replaced. All "hot" vents shall be strapped with metal straps or plumbers tape to maintain proper alignment and clearances to combustibles (1" for Type B vents and 6" for single wall vents). All damaged or deteriorated vents found during the tear off inspection will be required to be changed or extended when found to be short and not through the roof a minimum of 12".
- Class "B" or better roof covering is required for all buildings located in the "Hillside" area (east of North Park Victoria Drive, Evans Road and Piedmont Road) and installed to minimum 80 mph wind speed and exposure C standards (Section II-3-2.07 & 2.09, 2013 Milpitas Municipal Code).
- Class "C" or better roof covering is required for buildings located in other than "Hillside" areas as per CRC Section R902.1.3.

- Structural roof components shall be capable of supporting the roof-covering system and the material and equipment loads that will be encountered during installation of the system.
- Existing slate, clay or cement tile shall be permitted for re-installation, except that damaged, cracked or broken slate or tile shall not be reinstalled.
- Existing vent flashing, metal edgings, drain outlets, collars and metal counterflashings shall not be reinstalled where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled. (CRC R907.5)
- Flashings shall be installed in accordance with roofing manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation. (CRC R907.6)
- New roof coverings shall not be installed without first removing all existing layers of roof coverings where any of the following conditions occur: (CRC R907.3)
 - Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
 - Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
 - Where the existing roof has two or more applications of any type of roof covering.
 - Exceptions:
 1. Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.
 2. Installation of metal panel, metal shingle and concrete and clay tile roof coverings shall be permitted to be installed over existing wood shake roofs when the application is in accordance with Section R907.4.
 3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear-off of existing roof coverings.
- Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place (CRC R907.4).
- Where the application of a new roof covering creates a combustible concealed space, such as when battens or metal roofing is installed, fireblocking shall be installed in accordance with CRC R302.11.
- FLAT ROOFS:**
 - In order to prevent excessive accumulation of water (ponding), the roof must be sloped to provide positive roof drainage (CRC R907.1 exc).
 - When old roof membrane is removed to original deck, it is recommended (not required) that deck be re-sloped to 1/4 inch per foot minimum (CRC R907.1 exc).
 - If the roof is not re-sloped to minimum 1/4 inch per foot, the roof membrane installed must be approved for a flat roof installation and roof framing shall be checked for ponding instability as per ASCE7-05, Section 8.4.
 - All damaged or deteriorated roof drains and overflows must be replaced.

3. **ENERGY REQUIREMENTS:**

COOL ROOFS:

- Milpitas is in Climate Zone 4. Replacement of the roof surface of existing residential roofs does not require installation of a cool roof in Climate Zone 4. Refer to the “*Commercial Re-roof*” handout for high-rise residential (4+ stories) and hotel/motel buildings. (CEnC 150.2(b)1H)

RADIANT BARRIER:

- If the existing roof sheathing over an attic space is being replaced, a continuous Radiant Barrier is required (CEnC Compliance Manual Table 9-5A and Section 9.6.4).
- If required, the radiant barrier is to be installed below the roof deck in the attic, and on the gable ends. The most common installation method is to use roof sheathing with a barrier bonded to it by the manufacturer. The sheathing is installed with the barrier facing down towards the attic. Alternatively, a barrier material can be draped over the top of the rafters or trusses before the sheathing is installed, or can be stapled between or underneath the rafters or top chords of the trusses after the sheathing is installed. A radiant barrier shall have an emittance of 0.05 or less, tested in accordance with ASTM C1371 or ASTM E408, and shall be certified to the Department of Consumer Affairs as required by Title 24, Part 12, Chapter 12-13, Standards for Insulating Material and shall meet the installation criteria specified in the Reference Residential Appendix RA4 [CEnC 110.8(j) and 150.1(c)2, Compliance Manual Section 3.8.2B]

ENERGY COMPLIANCE FORMS:

- The following forms must be filled out and submitted with the permit application, or for online permits, attached to the permit IF a radiant barrier is required:
 - Certificate of Compliance form CF-1R-ALT-01 Prescription Alterations.
- The following forms must be filled out by the installer and given to the Inspector at time of final inspection IF a radiant barrier is required:
 - Certificate of Installation form CF-2R-ENV-04 Roofing-Radiant Barrier.

4. **CAL OSHA:**

- Compliance with all CAL OSHA safety orders for protection of workers including fall protection is required. Generally, fall protection is required on roofs of a height of more than 20 feet. For more information visit www.dir.ca.gov/dosh/.

5. **SMOKE ALARMS, CARBON MONOXIDE ALARMS & SPARK ARRESTERS:**

- In single family and multi-family residences (including townhomes, condominiums and apartments), installation of smoke alarms, carbon monoxide alarms and spark arresters on all chimneys is required prior to the final inspection. Refer to the “*Smoke Alarm, Carbon Monoxide Alarm and Spark Arrester Certificate*” attached for detailed information.

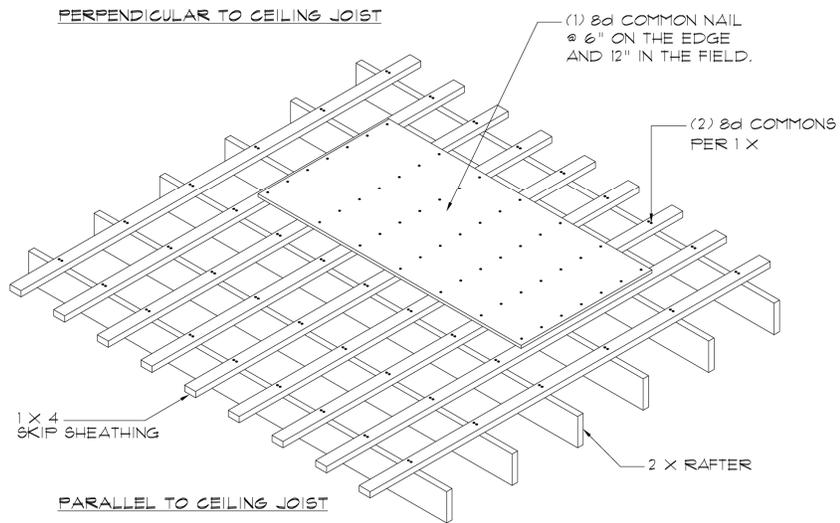
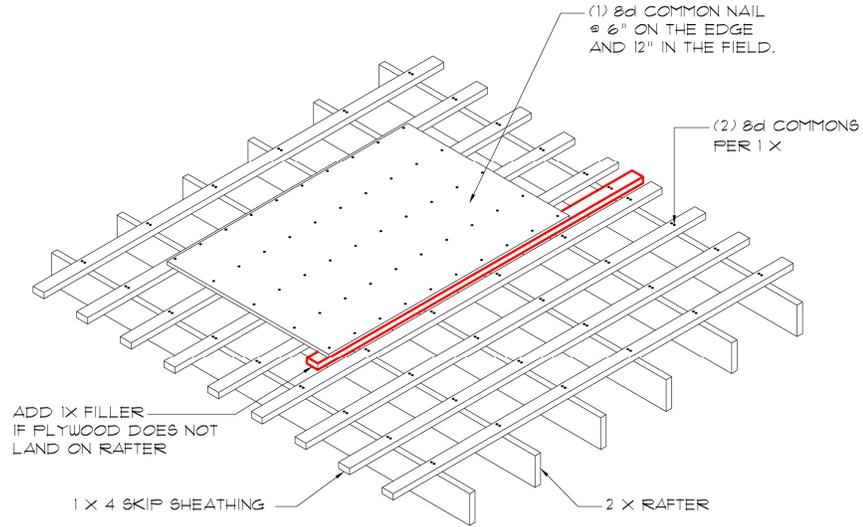
6. INSPECTIONS:

- The City of Milpitas Building inspectors are required to perform the inspections listed below on all re-roof work in the city.
 - **Pre-Roofing (tear off) Inspection:** After existing roofing is removed but before any new material is installed.
 - **Roof Nail Inspection:** After plywood (or wood) to create solid deck is installed (when applicable).
 - **In-Progress Inspection:** While the roofing material is being installed.
 - **Smoke detector and spark arrestor inspection:** Required to obtain a final.
 - **Final Inspection:** When all work has been completed, including:
 - Smoke alarm, carbon monoxide alarm and spark arrestor inspection (or provide the attached Certificate signed by the property owner).
 - Overflow drains cleaned.
 - Skylights secured.
 - All flues extended and secured.
 - Any roof equipment and or piping secured.
 - All exposed nails protected (caulked).
 - All exposed wood, roof jacks and metal flashing or edging painted.
- Inspections will not be made unless the roof is dry and safe to walk on.
- For each inspection, the Permit Card with the Energy Compliance Report forms completely filled out and attached, the ICC report on the roofing materials, and the Approved Job Copy of the Drawings (if any) must be presented to the inspector. Permits expire 180 days after issuance or last inspection passed, whichever is the latest.
- The contractor or owner must provide roof access (ladder to roof) for the all required inspections. Ladders must be OSHA approved, minimum Type I with a 250 lb rating, in good condition designed for its intended use, **tied off to the building** and a minimum 3 rungs above the roof.

7. QUESTIONS:

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

INSTALLATION OF SOLID SHEATHING OVER SKIP SHEATHING:

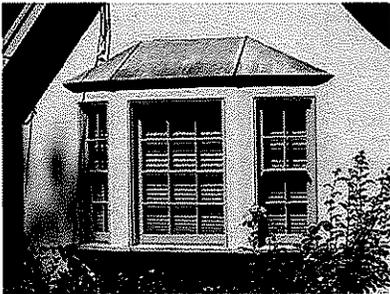




Requirements for Copper Roofs and Other Architectural Copper

Protect water quality during installation, cleaning, treating, and washing!

Copper from Buildings May Harm Aquatic Life



Copper can harm aquatic life in San Francisco Bay. Water that comes into contact with architectural copper may contribute to impacts, especially during installation, cleaning, treating, or washing.

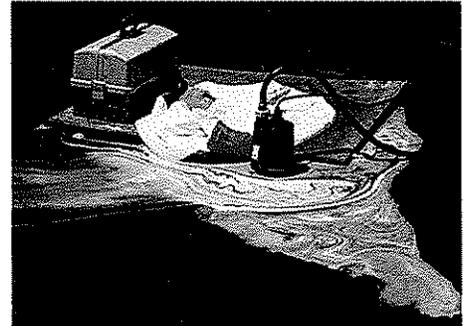
Patination solutions that are used to obtain the desired shade of green or brown typically contain acids. After treatment, when the copper is rinsed to remove these acids, the rinse water is a source of pollutants. Municipalities prohibit discharges to the storm drain of water used in the installation, cleaning, treating or washing of architectural copper.

Use Best Management Practices (BMPs)

The following Best Management Practices (BMPs) must be implemented to prevent prohibited discharges to storm drains.

During Installation

- If possible, purchase copper materials that have been pre-patinated at the factory.
- If patination is done on-site, implement one or more of the following BMPs:
 - Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
 - Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
 - Collect the rinse water in a tank and haul off-site for proper disposal.
- Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.



Storm drain inlet is blocked to prevent prohibited discharge. The water must be pumped and disposed of properly.

During Maintenance

Implement the following BMPs during routine maintenance activities, such as power washing the roof, re-patination or re-application of impervious coating:

- Block storm drain inlets as needed to prevent runoff from entering storm drains.
- Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

Protect the Bay and yourself!

If you are responsible for a discharge to the storm drain of non-stormwater generated by installing, cleaning, treating or washing copper architectural features, you are in violation of the municipal stormwater ordinance and may be subject to a fine.



Contact Information

Santa Clara Valley Urban Runoff Pollution Prevention Program, www.scvurppp.org, 1-800-794-2482



SMOKE ALARM, CARBON MONOXIDE ALARM and SPARK ARRESTER CERTIFICATE

This "Certificate" can be signed by the property owner and provided to the Building Inspector prior to final inspection if access to the interior of the dwelling for inspection of the smoke and carbon monoxide alarms is not possible and the permitted work being performed is exterior only (such as re-roofing, re-siding, patio covers, swimming pools and the like).

In single family and multi-family residences (including townhomes, condominiums and apartments), installation of smoke alarms, carbon monoxide alarms and spark arresters is required prior to the final inspection as follows:

Smoke Alarms shall be listed and labeled in accordance with UL 217 and installed in accordance with the provisions of the code and the household fire warning equipment provisions of NFPA 72. Systems and components shall be California State Fire Marshal listed and approved. Alarms shall be tested and maintained in accordance with the manufacturer's instructions. Alarms that no longer function shall be replaced. Conventional ionization smoke alarms that are solely battery powered shall be equipped with a ten-year battery and have a silence feature. **Alarms installed in one and two-family dwellings shall be replaced after 10 years from the date of manufacture marked on the unit, or if the date of manufacture cannot be determined.** (CRC R314)

Smoke detection systems. Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required for smoke alarms. Where a household fire warning system is installed using a combination of smoke detector and audible notification device(s), it shall become a permanent fixture of the occupancy and owned by the homeowner. The system shall be monitored by an approved supervising station and be maintained in accordance with NFPA 72.

Location. Smoke alarms shall be installed in each sleeping room, outside each separate sleeping area in the immediate vicinity of the bedrooms and on each story of the dwelling. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. Apartment complexes and other multiple-dwelling complexes shall have a smoke detector installed in the common stairwells. For R-3.1 occupancies (Residential Care Facilities), refer to CBC Section 907.2.11.2. The installation of smoke alarms and smoke detectors shall also comply with the following requirements:

1. Smoke alarms shall not be located where ambient conditions, including humidity and temperature, are outside the limits specified by the manufacturer's published instructions.
2. Smoke alarms shall not be located within unfinished attics or garages or in other spaces where temperatures can fall below 40°F or exceed 100°F.
3. Where the mounting surface could become considerably warmer or cooler than the room, such as a poorly insulated ceiling below an unfinished attic or an exterior wall, alarms shall be mounted on an inside wall.
4. Smoke alarms shall be installed a minimum of 20 feet horizontal distance from a permanently installed cooking appliance, except Ionization smoke alarms with an alarm-silencing switch or Photoelectric smoke alarms shall be permitted to be installed 10 feet or greater from a permanently installed cooking appliance and Photoelectric smoke alarms shall be permitted to be installed greater than 6 feet from a permanently installed cooking appliance where the kitchen or cooking area and adjacent spaces have no clear interior partitions and the 10 foot distances would prohibit the placement of a required smoke alarm or smoke detector. Smoke alarms listed for use in close proximity to a permanently installed cooking appliance can be installed in accordance with their listing.
5. Smoke alarms shall be installed not less than a 3 foot horizontal distance from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by the code.
6. Smoke alarms shall not be installed within a 36 inch horizontal path from the supply registers of a forced air heating or cooling system and shall be installed outside of the direct airflow from those registers.
7. Smoke alarms shall not be installed within a 36 inch horizontal path from the tip of the blade of a ceiling-suspended (paddle) fan.
8. Where stairs lead to other occupied levels, alarm shall be located so that smoke rising in the stairway cannot be prevented from reaching the alarm by an intervening door or obstruction.

9. For stairways leading up from a basement, alarms shall be located on the basement ceiling near the entry to the stairs.
10. For tray-shaped ceilings (coffered ceilings), alarms shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12 inch vertically down from the highest point.
11. Smoke alarms installed in rooms with joists or beams shall comply with the requirements of NFPA 72, Section 17.7.3.2.4.
12. Heat alarms and detectors installed in rooms with joists or beams shall comply with the requirements of NFPA 72, Section 17.6.3.

Carbon Monoxide Alarms: An approved carbon monoxide alarm listed as complying with UL 2034, approved and listed by the California State Fire Marshal, installed and maintained in accordance with NFPA 720 and the manufacturer's instructions shall be installed if they do not already exist in existing dwellings or sleeping units having a fossil fuel-burning heater or appliance, fireplace or an attached garage as follows: **outside each separate dwelling unit sleeping area in the immediate vicinity of bedroom(s) and on every level of dwelling unit.** Carbon monoxide detection systems that include carbon monoxide detectors and audible notification appliances, installed and maintained as required for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075. (CRC R315)

Power supply: Smoke and carbon monoxide alarms shall receive their primary power from the building wiring and shall be equipped with a battery back-up. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Smoke and carbon monoxide alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection. Smoke and carbon monoxide alarms are permitted to be solely battery operated (carbon monoxide alarms can also be plug-in with battery back-up) in existing buildings where no construction is taking place; in existing areas of buildings undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure unless there is an attic or crawl space available which could provide access for building wiring without the removal of interior finishes; where repairs or alterations are limited to the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck; or when work is limited to the installation, alteration or repairs of plumbing or mechanical systems or the installation, alteration or repair of electrical systems which do not result in the removal of interior wall or ceiling finishes exposing the structure; and, for carbon monoxide alarms, when other power sources recognized for use by NFPA 720 are used.

Interconnection: Where more than one smoke or carbon monoxide alarm is required to be installed within an individual dwelling or sleeping unit, the alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit, except interconnection is not required in buildings that are not undergoing alterations, repairs or construction of any kind; where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure unless there is an attic or crawl space available which could provide access for interconnection without the removal of interior finishes and no previous method for interconnection existed; where repairs or alterations are limited to the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck; or when work is limited to the installation, alteration or repairs of plumbing or mechanical systems or the installation, alteration or repair of electrical systems which do not result in the removal of interior wall or ceiling finishes exposing the structure. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Spark arresters: When a permit has been issued and the value of the work exceeds \$1,000, a spark arrester must be installed on all fireplace chimneys, if one does not already exist, per MMC Section II-3-2.06. Spark arresters shall be constructed in conformance with CRC Section 1003.9.2.

*** CERTIFICATION ***

I understand the above requirements and certify that I now have smoke alarms, carbon monoxide alarms and spark arrestors installed as required above.

HOMEOWNERS NAME (please print): _____

ADDRESS: _____

SIGNATURE: _____

DATE: _____ PERMIT NO. _____