

# Patio Covers and Enclosures

CITY OF NEWARK, CALIFORNIA

BUILDING INSPECTION DIVISION

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Revised: July 16, 2010

## GENERAL

Patio covers and enclosed patios require building permits. This document addresses questions commonly raised by homeowners and contractors. The following information only addresses patio and patio enclosures, which are attached to a single-family dwelling. For information on stand-alone accessory structures, please refer to Building Inspection Form No. B-56 titled "Residential Accessory Structures."

## LOCATION

In general patios must be set back at least five feet (5') from side property lines and fifteen feet (15') from rear property lines. However, setback standards differ throughout the City. Please call the City Planning Division at (510) 578-4330 for information specific to your property.

## PROHIBITED USES (enclosed patios)

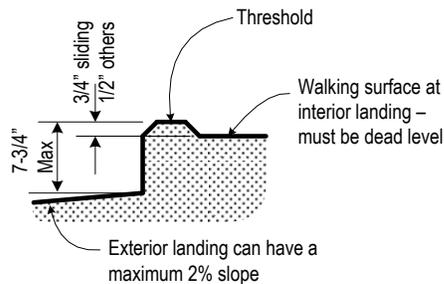
Enclosed patios can be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms, living or family rooms, or other habitable rooms. **Enclosed patios cannot be heated.**

## ENCLOSED PATIOS

Appendix Chapter I of the California Building Code has been adopted by the City. It allows for the enclosure of normally open patios provided the following standards are met. Patios installed in a U shaped configuration can not be enclosed. The open side of the patio must remain open with no glazing or screening.

- The highest portion of any enclosed patio can not exceed 12 feet above adjacent grade.
- Enclosure walls can be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches of each wall, measured from the floor. Areas counted as "open" are the net free areas of openings and include openings with screens or glazing. Support mullions between windows can not be included as open area.
- The portions of the enclosure considered "open" can be left completely open or covered with insect screening, 1/8 inch minimum thick translucent or transparent plastic, or tempered glass. Window coverings can be permanently installed or they can be removable.
- Covered patios in which emergency egress or rescue openings from sleeping rooms open into a patio shall not be enclosed.
- An enclosed patio may be installed over exterior openings in a dwelling which provide natural light and ventilation for the dwelling provided all the following standards are met;

- Openings between the dwelling room and the patio enclosure shall be thermally isolated. Doors shall be weather stripped and windows shall be dual glazed.
  - The new clear opening (doors and operable portions of windows) between the dwelling room and the patio enclosure shall be not less than 8 percent of the dwelling room floor area, but not less than 20 square feet.
  - The openable (doors and/or operable portions of windows) area of the patio enclosure walls shall be no less than 5 percent of the combined floor area of the dwelling room and patio enclosure.
  - The patio enclosure shall have at least one 36 inch wide by 80 inch high door opening to the exterior of the enclosure.
- Thresholds for patio enclosures must meet height requirements.



### **DRAWINGS – Wood Framed**

Wood framed patio covers can be built using standards shown in Building Inspection Form No. B-41 titled “Wood Patio Covers.” You may also design your own. For complicated patio cover designs, assistance from a licensed architect or engineer may be required. Provide three copies of these drawings.

You will also need to provide a site plan, drawn to scale showing the property lines, existing structures, proposed patio cover or enclosure with dimensions, and dimensions between the patio cover or enclosure and property lines and any other detached accessory structure. The City provides a form for the site plan.

### **DRAWINGS – Factory Built Modular**

There are a number of companies that manufacture and install metal patio covers and enclosures. These manufacturers provide standard drawings, which have been pre-approved by the International Conference of Building Officials (ICBO). Provide three copies of these drawings. You will also need to provide a site plan drawn to scale showing the property lines, existing structures, proposed patio cover or enclosure with dimensions, and dimensions between the patio cover or enclosure and property lines and any other detached accessory structure. The City provides a form for the site plan.

### **DRAWINGS – Light Duty Sheet Metal**

There are a number of retail stores that sell lightweight metal patio covers designed for the “do-it-yourself” person. The manufacturers of these units provide standard drawings, which have been pre-approved by the International Conference of Building Officials (ICBO). Provide three copies of these drawings. You will also need to provide a site plan drawn to scale showing the property lines, existing structures, proposed patio cover or enclosure with dimensions, and dimensions between the patio cover or enclosure and property lines and any other detached accessory structure. The City provides a form for the site plan.

## **FOUNDATIONS**

Patio covers and enclosures can be installed directly on new or existing concrete slabs provided the concrete is at least 3-1/2 inches thick, is in sound condition, and does not support posts with loads higher than 750 pounds. Depending on the weight of the patio cover, 50 to 60 square feet of patio roof equals 750 pounds.

## **ELECTRICAL**

Any electrical lights, switches, or outlets shall be installed per the California Electrical Code. Wiring shall be installed in metal or plastic electrical conduit (not plastic sprinkler pipe) or run within the structure. All electrical plugs shall be ground fault interrupted (GFI) protected. For enclosed patios, any new electrical wiring shall be fed by a new circuit. Extending an existing circuit is prohibited, unless it can be demonstrated that the area served by the extended circuit will be less than 640 square feet for 20 amp circuits or 480 square feet for 15 amp circuits (existing floor area plus new enclosed patio area).

## **INSPECTION – Open Side Wood Frame**

The number of inspections required depends upon the complexity of the construction. Open framed structures with metal roofs and located on an existing concrete patio slab only require a single inspection conducted when the construction is completed. If foundations are installed then an additional inspection is needed. If the roof is a hot-mopped or torched-downed type of material over a wood deck then an additional inspection is needed of the plywood deck before the roof covering is installed. The inspector will verify:

- Compliance with the approved plans
- Proper type and quantity of fasteners
- Layout in relation to property lines
- Proper roof panels
- Electrical wiring and GFI breakers, if any
- Minimum open area

## **INSPECTIONS – Factory Built Modular**

Factory built metal patio enclosures generally require two inspections.

**First Inspection** – Will occur after the wall base track and the track attached to the existing structure, which will support the roof, are installed but before any wall or roof panels are installed. The inspector will verify:

- Compliance with the approved plans
- Proper tracks at both sill and wall
- Proper type and quantity of fasteners
- Layout in relation to property lines
- Potential issues with existing or proposed landings

**Second inspection** – Will occur after the patio enclosure is finished. The inspector will verify:

- Proper wall and roof panels

- Proper type, quantity, and spacing of fasteners
- Location and size of landings
- Weather proofing at existing wall and new roof intersection
- Electrical wiring and GFI breakers (random panels should be left off so inspector can see wiring, which may be inside wall panels)
- New circuits, if needed
- Minimum open area
- Glazing or screen type

### **INSPECTIONS - Open Sided Light Duty Sheet Metal**

Most light duty sheet metal patio covers require only one inspection. This inspection will occur after the patio cover is finished. The inspector will verify:

- Compliance with the approved plans
- Proper type and quantity of fasteners
- Layout in relation to property lines
- Proper roof panels
- Electrical wiring and GFI breakers, if any
- Minimum open area

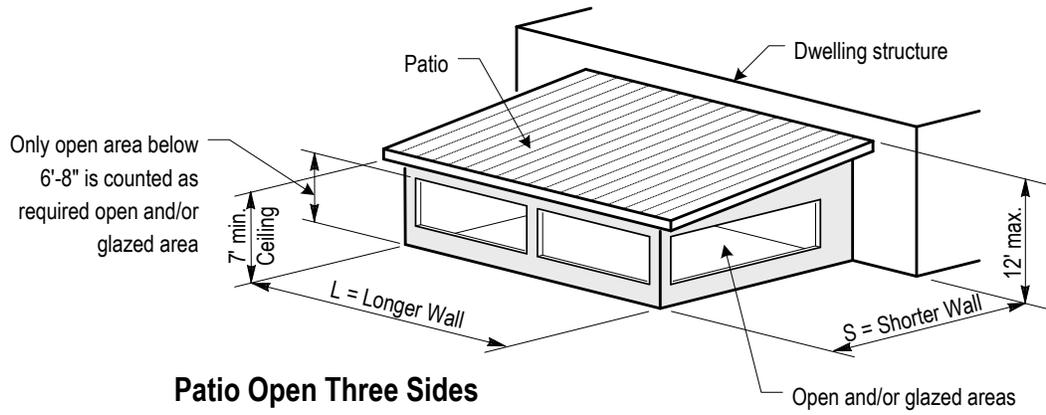
### **COST OF PERMITS**

The cost of a permit is based upon the number of inspections needed plus plan review costs and application fees.

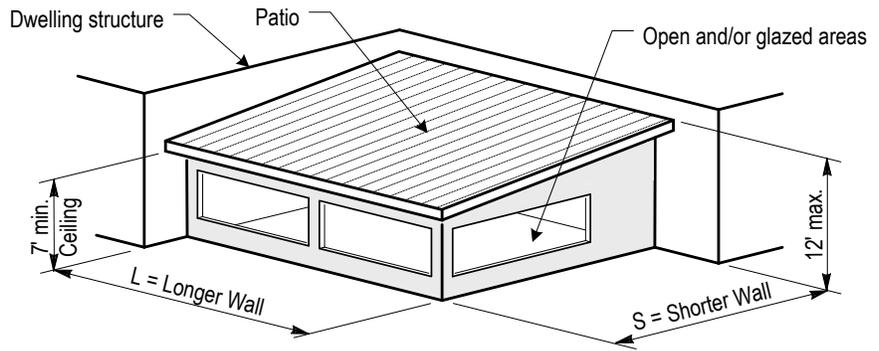
### **PLAN REVIEW**

All patio covers and enclosures require a plan review which normally can be accomplished over-the-counter while the applicant waits, provided both Building and Planning staff are available. In order for contractors of enclosed patios (sun rooms) to obtain an over-the-counter plan review they need to do the following:

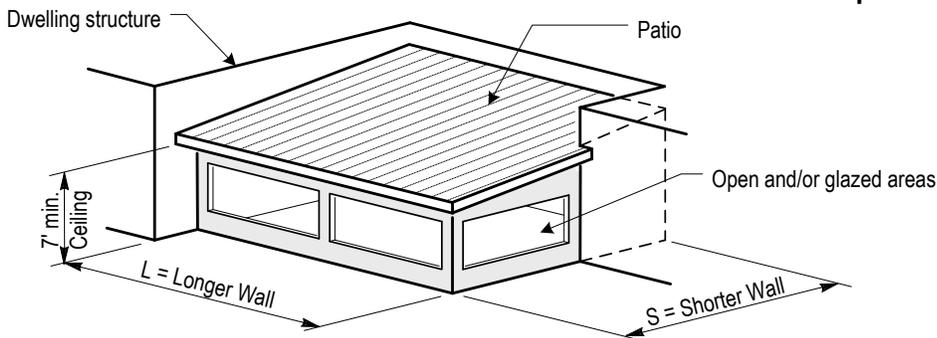
- Provide three (3) sets of plans of the standardized drawing.
- Provide a site plan, drawn to scale showing the property lines, existing structures, proposed patio cover or enclosure with dimensions, and dimensions between the patio cover or enclosure and property lines and any other detached accessory structure. The City provides a form for the site plan.
- Provide a dimensioned floor plan drawn to scale showing the enclosure walls, in addition to window and door locations for both the patio and adjacent main dwelling.
- Circle the applicable details from the standard plans utilized for the subject project. Please use a heavy dark pen rather than yellow highlighter. Yellow highlighter will not microfilm.
- Provide calculations demonstrating compliance with the 65 percent open requirement (please note that mullions between window panels cannot be counted as open area.)



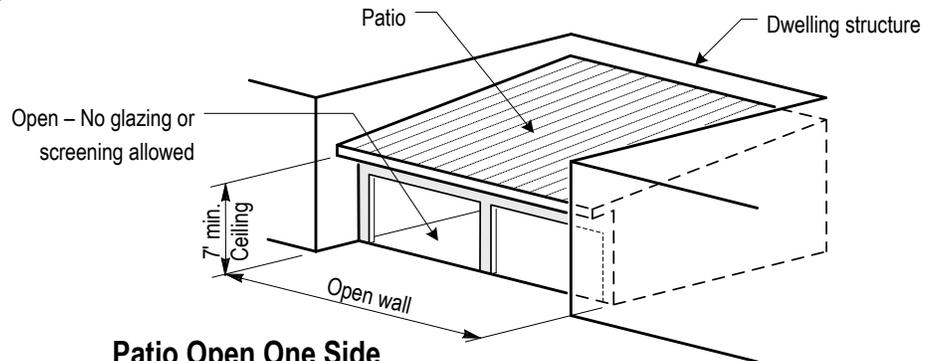
**Patio Open Three Sides**



**Patio Open Two Sides**

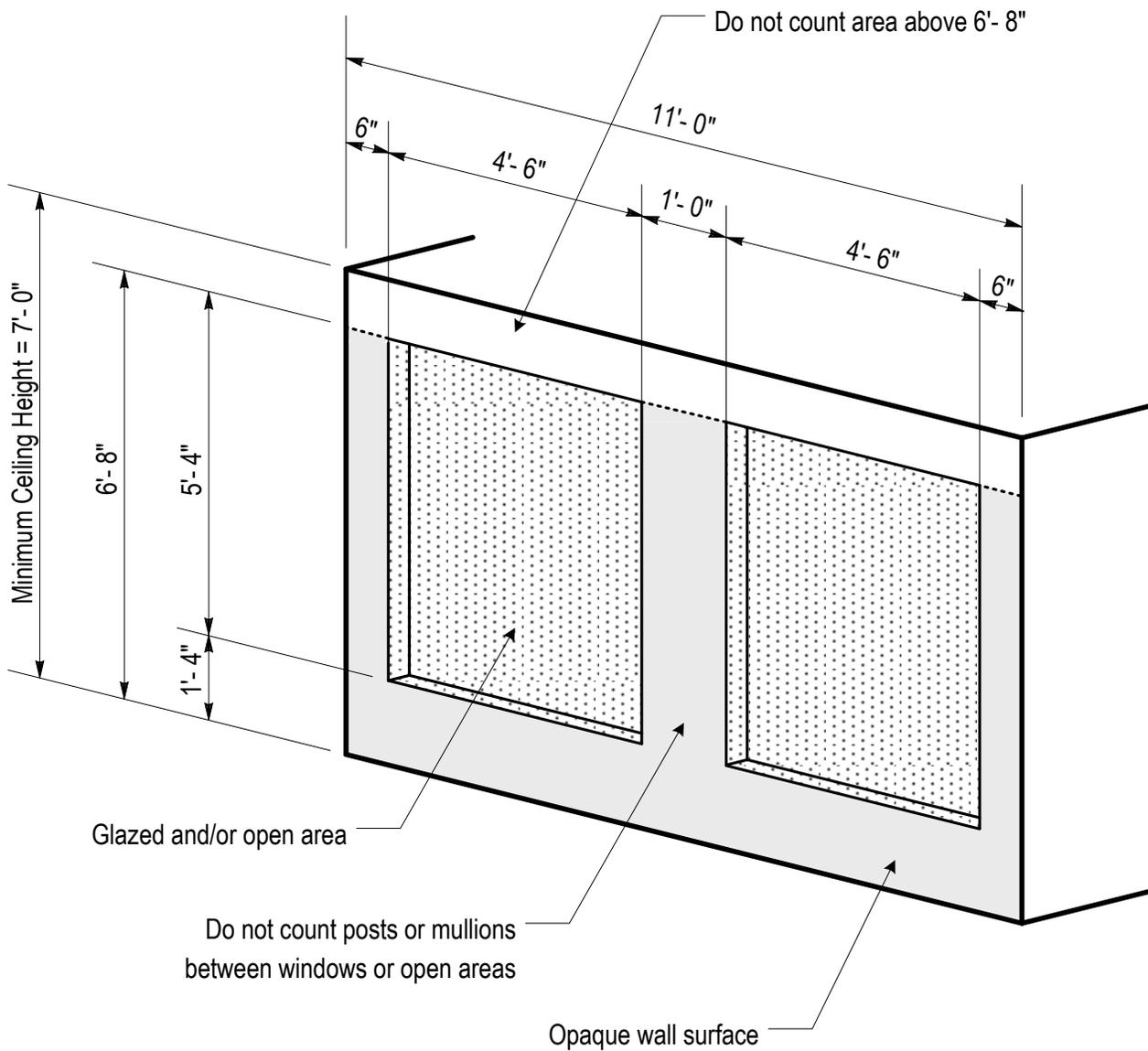


**Patio Open Partially Open Two Sides**



**Patio Open One Side**

No glazing or screening is allowed on the open side of patios with only one exposed side



**Sample Calculation For Determining Compliance With Minimum Glazed and/or Open Area**

**Minimum glazed and/or open area below 6'- 8" is 65% of the gross wall area below 6'- 8"**

Gross wall area below 6'- 8" = 11'- 0" x 6'- 8" = 73.4 sf

Required glazing and/or open area below 6'- 8" = 73.4 sf x 65% = 47.7 sf

Glazed and/or open area provided below 6'- 8" = 4'- 6" x 5'- 4" = 24 sf x 2 windows = 48 sf

48.0 sf is greater than 47.7 sf - Therefore, configuration complies with minimum standards