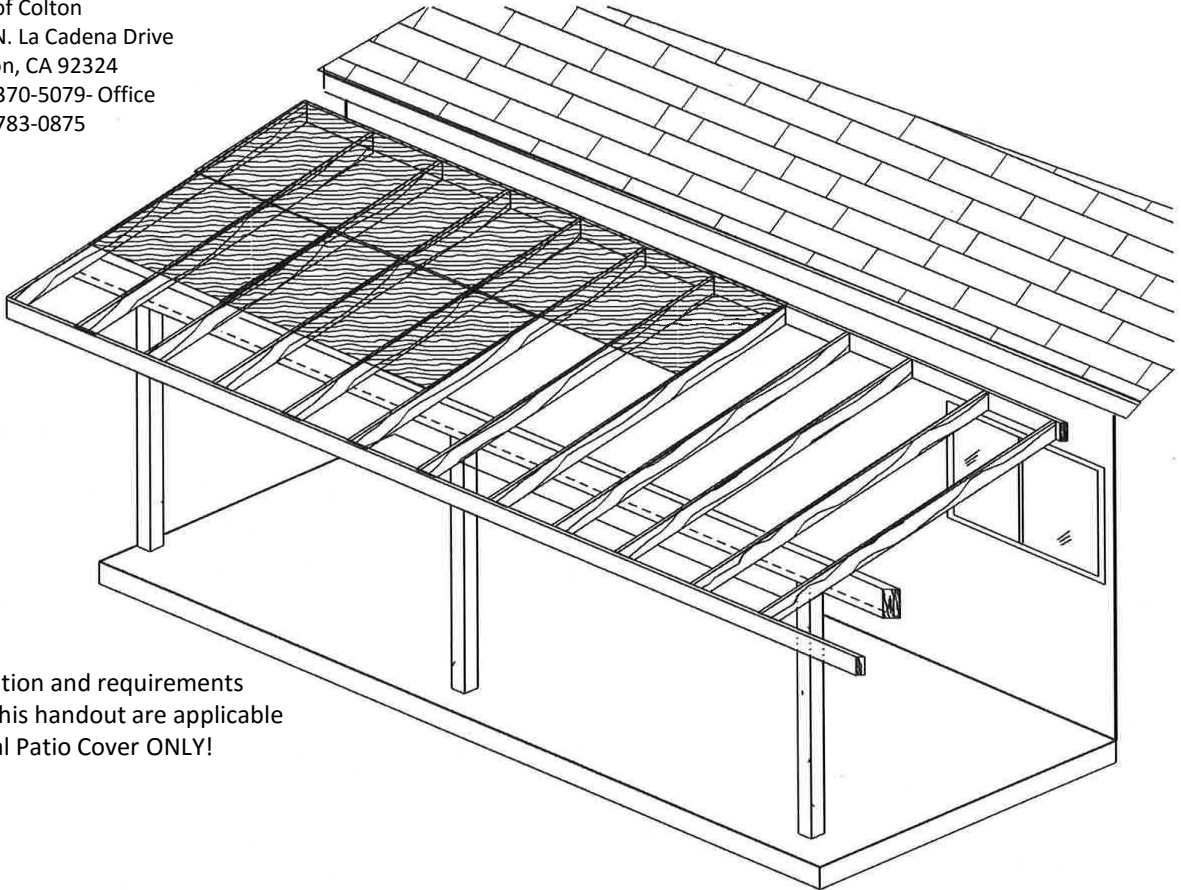




City of Colton
659 N. La Cadena Drive
Colton, CA 92324
909-370-5079- Office
909-783-0875

INFORMATION AND SUBMITTAL REQUIREMENTS FOR:

RESIDENTIAL PATIO COVERS



This information and requirements outlined in this handout are applicable to residential Patio Cover ONLY!

Patio covers are defined as one-story structures, not exceeding 12 feet in height, that are used only for recreational outdoor living purposes and not as carports, garages, storage rooms, habitable rooms, or 2nd. floor sun decks or balconies.

Patio slabs **WITHOUT** an overhead structure do **NOT** require a building permit. However, if footings are to be poured within the slab to accommodate a future patio cover; then, a "foundation only permit" is required.

DRAWINGS REQUIRED:

No specific drawings are required, other than a site plan (included), when constructing a residential patio cover in accordance with the standards shown in this handout. Simply fill out the permit application form completely, using the tables within this handout, and return it to the Building and Safety permit counter.

NOTE: Residential patio covers, **not** built according to the standards in this handout, and all decks are required to submit complete construction drawings.



-GENERAL PATIO COVER NOTES-

- A. This handout applies only to flat roof systems less than 2 vertical units in 12 horizontal units. This handout does not apply to snow load; to the use of any tile roof; to the use of a deck above the patio; to a truss roof system, or to a gable roof conventional construction.
- B. All construction, material and workmanship shall conform to the latest adopted edition of the California Building Code.
- C. All parts of the structure shall be interconnected in such manner as to create a stable structure capable of resisting uplift and lateral displacement and to transmit all forces, both vertical and horizontal, from the uppermost portion of the structure to the foundation.
- D. The overall lateral stability of the structure is subject to the Building Inspectors' approval, and additional bracing may be required. (from what is shown on the handout).
- E. All footing excavation, forms, reinforcement, and column bases shall be inspected and approved by the City of Colton Building Inspector prior to the placement of any concrete. All excavations shall be level, clean, and contain no loose earth or other foreign material.
- F. All concrete shall be: 1 part cement to 2 parts sand to 3 parts gravel, and shall obtain a minimum ultimate compressive strength of 2,500 PSI at 28 days.
- G. All lumber, plywood, etc., shall conform to the applicable standards under which it was graded and shall be so identified by a grade mark (stamp).
- H. All lumber shall be Douglas Fir (North) and shall be of the following minimum grades, unless otherwise noted: Rafters (2x, 3x) #2; Beams (4x) #2; Beams (6x and larger) #1; Posts #1.
- I. Plywood shall be Structural II or C-D grade minimum, with exterior grade glue, unless otherwise noted. Each sheet shall be stamped with a registered grade stamp "DFPA" or "PA" and shall conform to APA-E30 Engineered Wood Construction Guide.
- J. Structural members shall not be cut, notched, or bore in any manner. [except as specified in the California Building Code and approved by the Building Inspector.]
- K. All beams, headers, rafters, joists, etc... shall be set with the crown side up.
- L. Posts shall be supported by concrete piers or metal post anchors that project at least 8 inches above exposed ground and at least 1 inch above a concrete slab that entirely surrounds and adjoins the post a minimum of 12 inches in width.
- M. All bolts shall be a minimum nominal diameter of $\frac{1}{2}$ ", unless otherwise noted. Each bolt shall have a nut and a standard cut washer under both the head and nut. Holes shall be bored $\frac{1}{16}$ " larger than the nominal bolt diameter. Lag screws shall have a standard cut washer under the head and shall be installed in pre (lead) holes of approximately 75 % of the shank diameter. All bolts and lag screws shall be installed and shall be re-tightened prior to the final inspection by the Building Inspector.
- N. All framing hardware and connectors (straps, joists hangers, post caps, column bases, etc.), shall be "Simpson Strong Tie" or equal.
- O. All bolts, screws, hardware, etc.. shall be of an approved corrosion-resistant type.
- P. Positive connection required, no toenails or pressure block nailing. Composites shall include manufacturer's specification sheets as to span length and fastening.

2X SOLID BLOCKING REQUIRED FOR ALL SOLID PATIO COVERS W/ MIN (3) 16d TOENAILS TO HEADER, OR A-34 OR EQUAL FRAMING ANGLES

2X2 OR 2X4 @ 3" O.C. MIN. SPACING LATTICE OR 1/2" NOMINAL PLYWOOD WITH BUILT-UP OR ROLL ROOFING

RAFTER SPACING:
SEE TABLE "A"

ROOF SLOPE: 1/4" PER FOOT MIN.
EDGE NAIL PLYWOOD W/ 8d NAILS @ 6" O.C. (STANDARD 6" / 12" NAILING ELSEWHERE)

SIMPSON (OR EQUAL) POST CAPS OR "T" STRAP EACH SIDE 1/2" DIA. THRU BOLTS OR 16d NAILS

HEADER SPAN & SIZE:
SEE TABLE "B"

KNEE BRACE:
SEE FRAMING DETAILS (PG. 2)

TYPICAL 4x4 POSTS MIN

CLEARANCE:
6'-8" MIN.
8'-0" MAX.

RAFTER SPAN & SIZE SEE TABLE "A"

EXISTING WOOD STUD WALL

3 1/2" CONCRETE SLAB TYPICAL

SLOPE

COLUMN BASE - USE SIMPSON CBSQ, PBS OR EQUAL W/BOLTS/SCREWS/NAILS PER MFG. SPECS.

4X4 POST 1" STANDOFF BETWEEN CONCRETE AND WOOD POST

FOOTING SIZE:
SEE TABLE "C"

FRONT VIEW

SIDE VIEW

TABLE "A"

RAFTER SPANS

(DOUGLAS FIR #2 OR BETTER)

SIZE	SPACING	SPAN
2 x 4	12" O.C.	9' - 10"
	16" O.C.	8' - 11"
	24" O.C.	7' - 8"
	32" O.C.	*6' - 3"
2 x 6	12" O.C.	15' - 4"
	16" O.C.	13' - 9"
	24" O.C.	11' - 3"
	32" O.C.	*9' - 7"
2 x 8	12" O.C.	20' - 0"
	16" O.C.	18' - 2"
	24" O.C.	14' - 10"
	32" O.C.	*12' - 8"
2 x 10	12" O.C.	20' - 0"
	16" O.C.	20' - 0"
	24" O.C.	18' - 11"
	32" O.C.	*16' - 2"
4 x 4	24" O.C.	10' - 0"
	32" O.C.	*9' - 3"
	48" O.C.	*7' - 8"
4 x 6	24" O.C.	15' - 11"
	32" O.C.	*13' - 9"
	48" O.C.	*11' - 3"
4 x 8	24" O.C.	20' - 0"
	32" O.C.	*18' - 2"
	48" O.C.	*14' - 10"

* THIS SPACING AND SPAN IS FOR LATTICE PATIO COVERINGS ONLY.

TABLE "B"

HEADER SIZE & SPANS

(DOUGLAS FIR #2 OR BETTER)

RAFTER	HEADER	
	SPAN	SIZE
UP TO 12'-0"	8'-0" MAX	4 x 6
	10'-0" MAX	4 x 8
	12'-0" MAX	4 x 10
	14'-0" MAX	4 x 12
12'-1" TO 20'-0"	8'-0" MAX	4 x 8
	10'-0" MAX	4 x 10
	12'-0" MAX	4 x 12
	14'-0" MAX	4 x 14

TABLE "C"

FOOTING SIZE

BASED ON 1000 P.S.F. SOIL BEARING PRESSURE.

18" SQ. X 12" DEEP
18" SQ. X 12" DEEP
18" SQ. X 12" DEEP
18" SQ. X 12" DEEP
24" SQ. X 12" DEEP
24" SQ. X 12" DEEP
24" SQ. X 12" DEEP
24" SQ. X 12" DEEP

TABLE "D"

LEDGER BOLTING Δ

ALL LAG BOLTS SHALL HAVE 1/4" PRE-DRILLED HOLES * (SEE NOTE 2)

1/2" DIA. X 5" LONG AT 16" O.C. STAGGERED

(2) 3/8" DIA X 5" LONG AT 16" O.C.

NOTES:

- Two 2X MEMBERS MAY BE SUBSTITUTED FOR ONE 4X HORIZONTAL FRAMING MEMBER.
- LAG BOLTS MUST FULLY ENGAGE A WOOD STUD OR RIM JOIST AND BE PROVIDED WITH APPROPRIATE WASHERS. LAG BOLTS SHALL BE LOCATED A MINIMUM OF 1-1/2" FROM THE TOP OR BOTTOM OF THE LEDGER.
- NOT DESIGNED TO BE ENCLOSED - ADDITIONAL ENGINEERING ANALYSIS WILL BE REQUIRED IF ENCLOSED.
- SEE PAGE 2 OF 6 FOR CONSTRUCTION DETAILS.
- ARTIFICIAL LIGHTING IS REQUIRED IN ROOMS THAT HAVE WINDOW OPENINGS INTO THE COVERED PATIO AREA IF THE TOTAL WINDOW AREA IN THAT ROOM IS LESS THAN 10% OF THE FLOOR AREA OF THE ROOM OR 20 SQUARE FEET, WHICHEVER IS GREATER.

DISCLAIMER:

ALTERNATE PATIO DESIGNS MAY BE POSSIBLE WHEN PROVIDED WITH AN ENGINEERED ANALYSIS. USE OF THIS CONVENTIONAL STANDARD DESIGN IS AT THE USER'S RISK AND CARRIES NO IMPLIED OR INFERRED GUARANTEE AGAINST FAILURE OR DEFECTS.



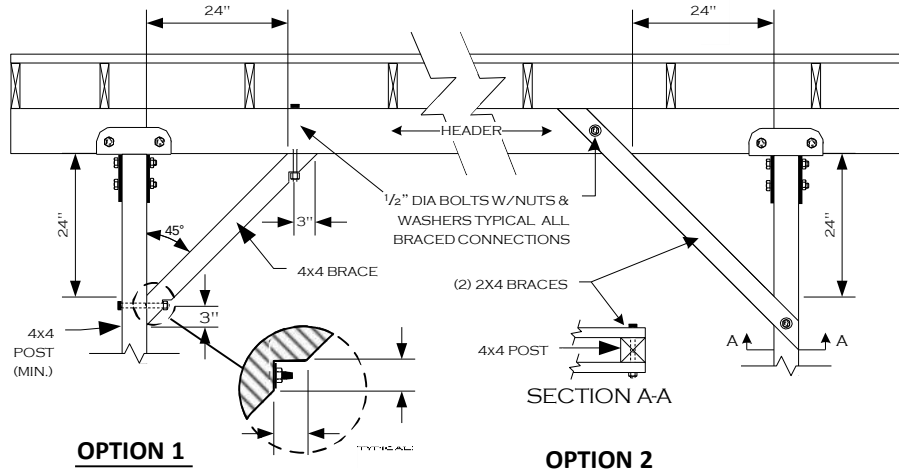
**CITY OF COLTON
BUILDING & SAFETY**

PATIO COVER STANDARD

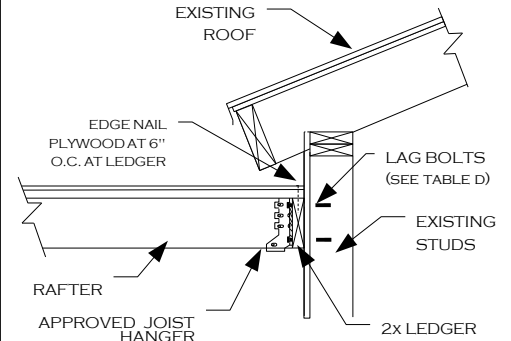
PHONE : (909) 370-5079

KNEE BRACE DETAIL AT END POSTS

(REQUIRED WHEN RAFTER SPAN EXCEEDS 12 FT.)



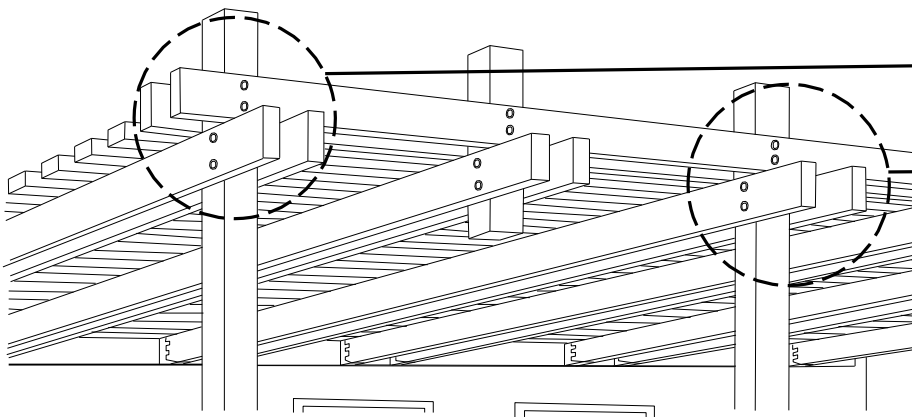
LEDGER ATTACHMENT DETAIL



NOTES:

1. USE A CONTINUOUS 2X LEDGER – SAME DEPTH AS RAFTER OR LARGER
2. SEE TABLE "D" FOR BOLTING REQUIREMENTS

INVERTED HEADER DESIGN OPTION (LATTICE ONLY)



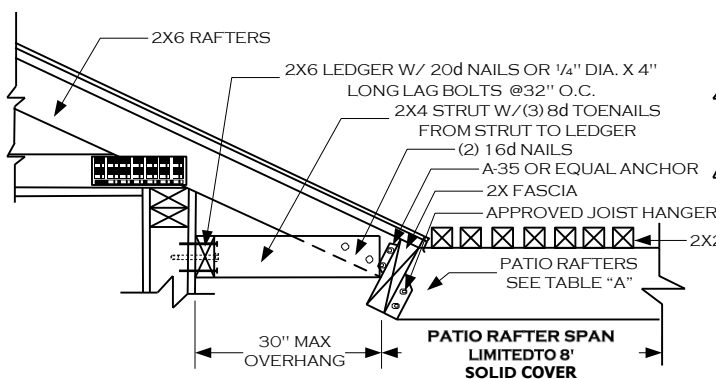
TWO 1/2" A. THRU-BOLTS (W/ WASHERS), PER CONNECTION AS SHOWN

FOR HEADERS OR RAFTERS- TWO 2X MEMBERS MAY BE SUBSTITUTED FOR ONE 4X MEMBER. SEE TABLES "A" & "B" FOR SPAN LIMITS

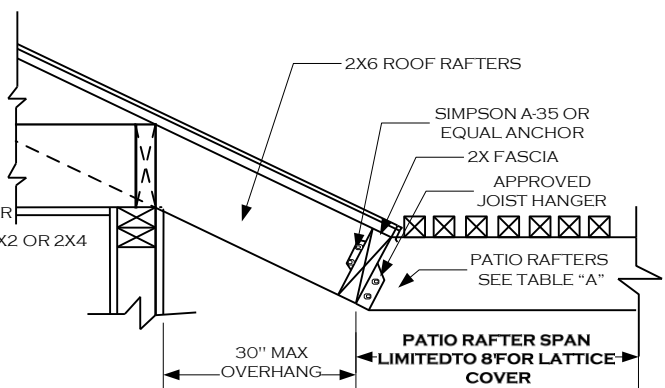
NOTE: KNEE BRACING REQUIRED WHEN RAFTER SPAN EXCEEDS 12 FEET

2X FASCIA (OVERHANG) ATTACHMENT

OPTION 1



OPTION 2



NOTE: VERIFY STRUCTURAL SOUNDNESS OF ROOF RAFTERS FOR DECAY OR TERMITE DAMAGE, AND REPLACE WITH LIKE MATERIALS AS NEEDED, AFTER CONSULTATION WITH THE BUILDING DEPARTMENT.



PHONE: (909) 370-5079

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**CITY OF COLTON
BUILDING & SAFETY**

PATIO COVER STANDARD

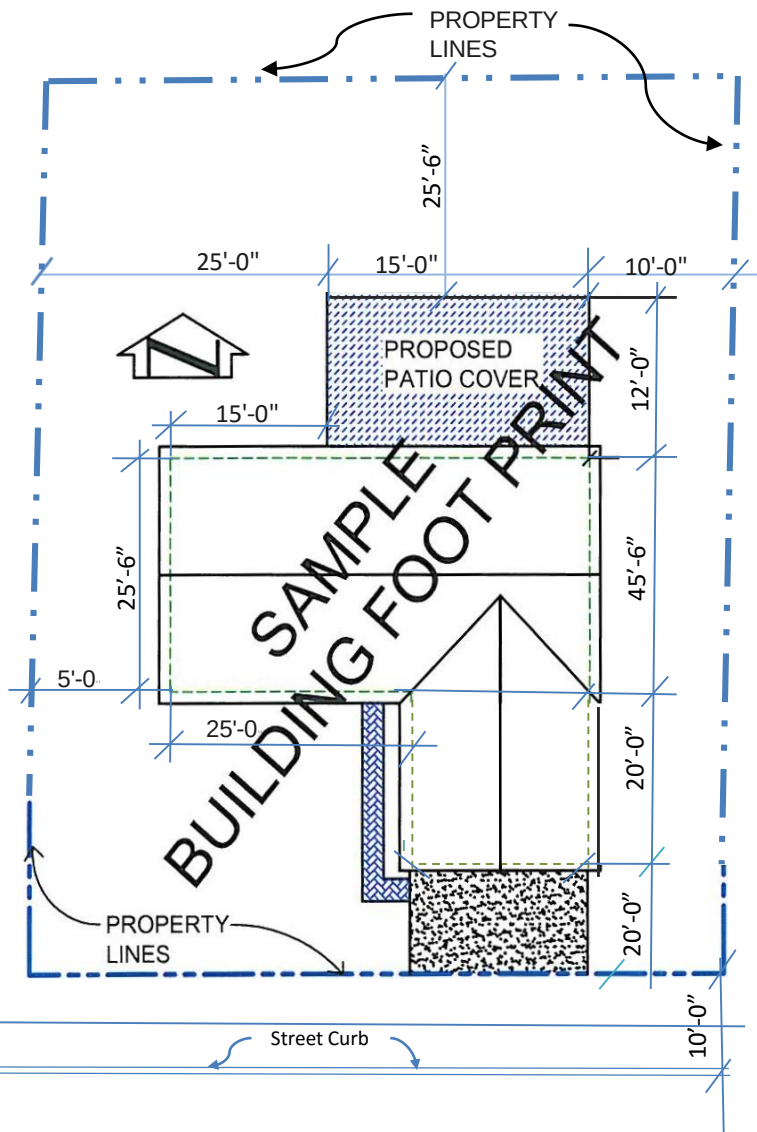
REV. 7-20-16



BUILDING & SAFETY DIVISION

RESIDENTIAL PATIO COVER

NOTE: This form is to be used only when the patio cover is being built in accordance with the CITY STANDARD specifications shown in this handout. (* Detached patios must include lateral bracing.) All **non-standard** patio covers and all decks require formal plans submitted for plan check.



STREET NAME

(NOT TO SCALE)

See attached blank site/plot plan for additional requirements. (Page 6)

1. PATIO SIZE:

_____ x _____ = _____ sq. ft.

2. TYPE OF COVER:

☐ Lattice ☐ Attached
☐ Solid ☐ *Detached

3. FOOTING SIZES:

End: _____ x _____

Internal: _____ x _____

4. POSTS:

Size: _____ x _____

Spacing: _____ ft. o.c.

5. HEADER/BEAM SIZE:

_____ x _____

6. RAFTER:

Size: _____ x _____

Spacing: _____ o.c.

7. LEDGER SIZE:

_____ x _____

Note:

Ledger to be same size as roof rafter or bigger.

DEVELOPMENT SERVICES DEPARTMENT
RESIDENTIAL PATIO COVER
PLOT/SITE PLAN

Plot Plan Requirements:

- ☐ Outside dimensions of existing building footprints
- ☐ Outside dimensions of existing unclosed structures
- ☐ Dimensions of patio cover roofline
- ☐ Location of patio cover posts
- ☐ Setbacks from each side of buildings (dimension control)
- ☐ Street curb
- ☐ Right of way between street curb and front lot line

Site Information:

Lot area: _____ sf.

Existing Structures: _____ sf.

Existing Lot Coverage: _____ sf.

% (E) Lot Coverage: _____ sf.

New Lot Coverage: _____ sf.

Total coverage area: _____ sf

% Total Coverage: _____ sf.

PROPERTY ADDRESS: _____

PROPERTY OWNER: _____

ADDRESS: _____

APN or Tract & Lot #: _____