CARPORT AND PATIO/DECK COVER PLAN REVIEW

The following items are required for all carports, deck and patio covers, and similar structures; covered decks require additional information. Walk-through plan check is limited to 15 minutes. If more time is required, the plans must be checked in for plan review. ***Detached patio covers, not supported by a deck, not exceeding 200 square feet, and accessory to one- and two-family dwellings, are exempt from permitting. Please see the Zoning department having jurisdiction for any additional requirements.***

PLOT PLAN

A site/plot plan review is required for all deck and patio covers, permitted or not. Contact the zoning depatment having jurisdiction for additional information.

Calhan	719-347-2586
Colorado Springs	719-385-5982
El Paso County	719-520-6300
Fountain	719-382-8521
Green Mountain Falls	719-684-9414
Manitou Springs	719-685-4398
Monument	719-481-2954
Palmer Lake	719-481-2953
Woodland Park (City limits)	719-687-5202

- **Complete street address.**
- **Legal description of property.**
- **Property lines and dimensions.** Include side, front and rear yards.
- **All site improvements,** including existing and proposed new construction (deck, enclosed patio, garage, etc.)

STRUCTURAL FRAMING PLAN & OVERVIEW PLAN

Drawn to scale (1/4" preferred) or fully dimensioned

- **Framing material -** Rafters and beams must be labeled and graded.
- **Rafter sizes and spacing** of all repetitive framing materials.
- **Engineered wood trusses.** If engineered wood trusses are used, provide the following information. *(Note: Truss manufacturer layouts are not accepted in lieu of framing plans.)*
  - Detail of each truss component produced by the manufacturer, stamped by a Colorado licensed design professional.
  - Label all trusses on the roof framing plan with alphanumeric labels corresponding to the details
  - Label all girder trusses with the number of plies and size and species of bearing chord or web
- **Beam sizes.** All beams must have full bearing. No bolting of beams to the side of posts without the approval stamp of a Colorado licensed design professional.
- **Engineered beam products for exterior use** must be approved for exterior use by the manufacturer.
- **Beam splices must be directly over post**; mid-span splices are not allowed unless engineered.

STRUCTURAL FRAMING PLAN & OVERVIEW PLAN (Cont)

- **Connection at house,** see attached illustration for all options.
  - Ledger boards must be weather protected by an *approved* method, either flashing or spacing. Ledgers cannot be attached to a cantilever at the rim level, brick veneer, or manufactured home without the approval stamp of state of Colorado licensed design professional. Information must include:
    - Size
    - Connection type:
      - Size and quantity of lag bolts or lag screws.
    - Supporting material:
      - Rim
      - Stud
      - Concrete
      - Concrete masonry unit
    - Specify hangers used
  - Overframing onto the roof must provide support at the exterior bearing wall. Overframing needs to be shaded and noted on plan
- **Posts.** Information must include:
  - Material
  - Size
  - Height

ROOFING MATERIAL

Specify material of roof covering and roof pitch.

FOUNDATION PLAN

- **Soil bearing capacity** stated as shown on the soils report. In lieu of a soils report, 1500 psf will be assumed.
- **Location of piers** shown.
- **Diameter of piers** specified. If cover is above a deck and using the same piers, piers will need to be larger than indicated on the pier sizing chart due to the combination of loads.
- **Footing detail** provided (see attched illustration)
- **Point loads less than 750 pounds** may be placed directly on a 4" thick slab without piers when spaced a minimum of 6' apart.

NAIL/SCREW USAGE

Only nails are acceptable for hangers unless otherwise allowed by the hanger manufacturer. Follow all manufacturers installation instructions for hangers chosen. End nailing is not allowed. Hangers capable of resisting rotation required.

NON-CONVENTIONAL CONSTRUCTION

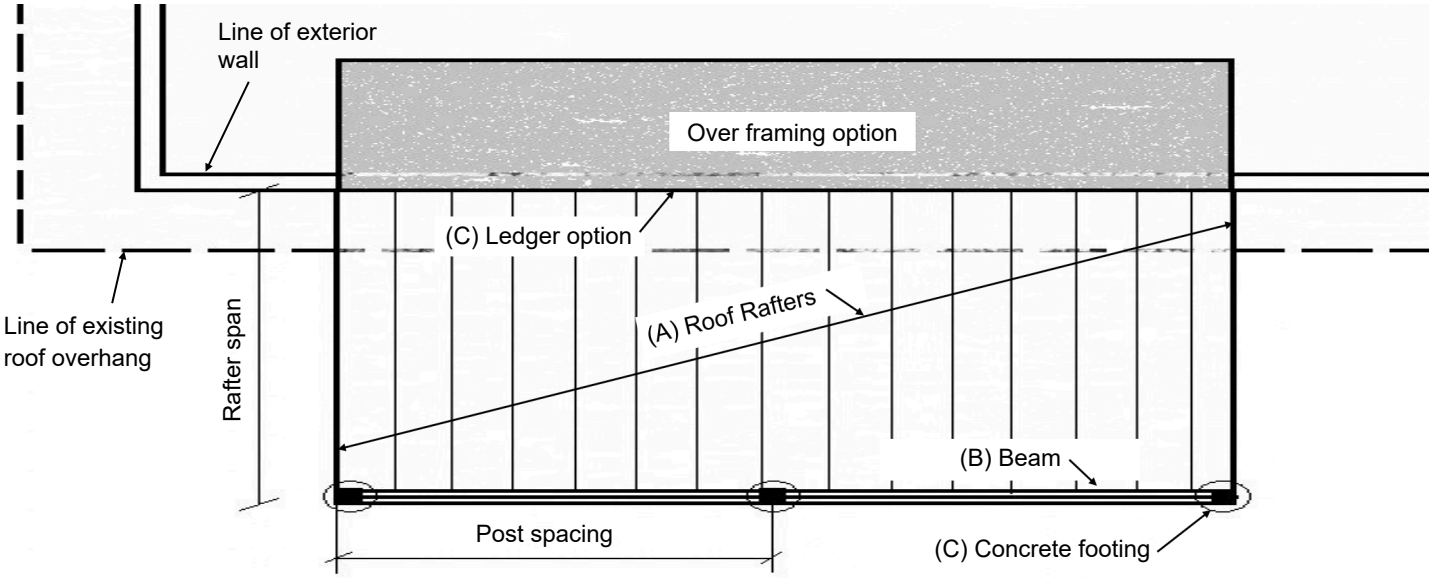
Residential plans that differ from conventional construction must be sealed and signed by a design professional licensed by the state of Colorado. Examples of non-conventional construction include:

- Block or poured concrete walls, including approved insulated concrete forms (ICF), that extend beyond the foundation
- Earth-sheltered or bermed
- Steel stud or post-and-beam
- Pre-engineered metal
- Structural Insulated Panel (SIP)
- Log
- Adobe or masonry brick
- Straw or tire bale

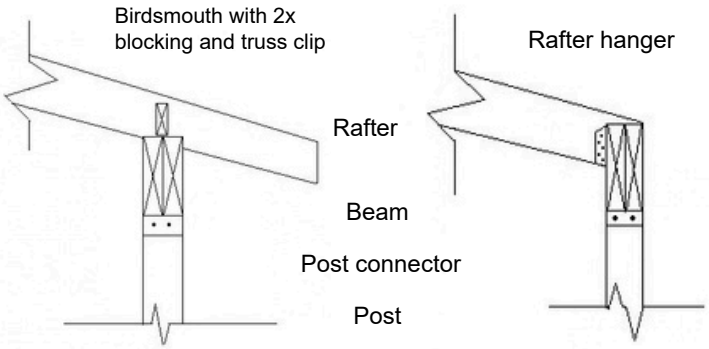
COOKING APPLIANCES

If a built-in cooking appliance, i.e. grill or cooktop, is being installed under the projection of the roof, the manufacturer’s installation instructions must be provided to verify clearance to combustibles, the requirement of an exhaust hood, and/or openness requirements.

PATIO OR DECK COVERS

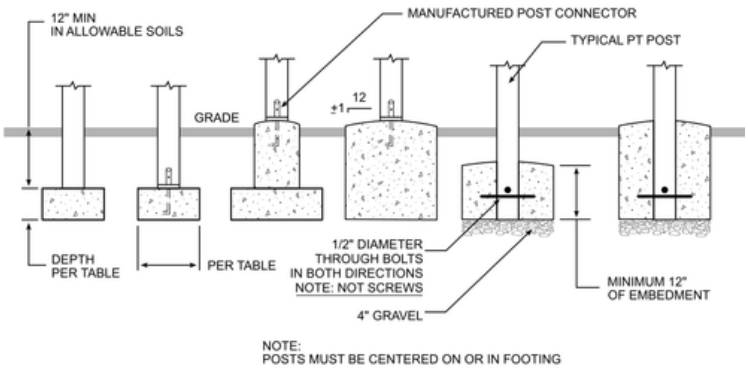


EXAMPLE FRAMING PLAN

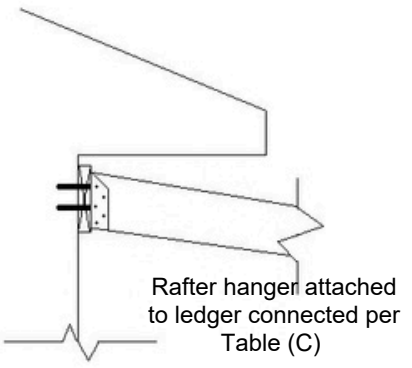


BEAM OPTION 1

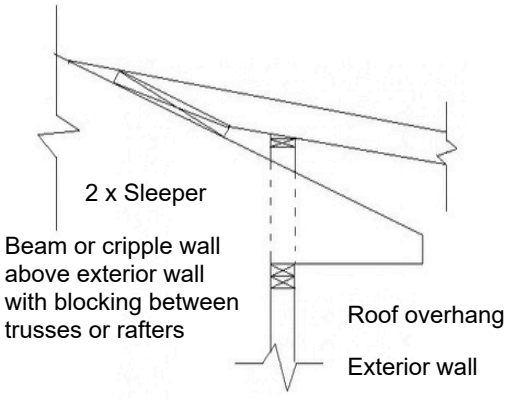
BEAM OPTION 2



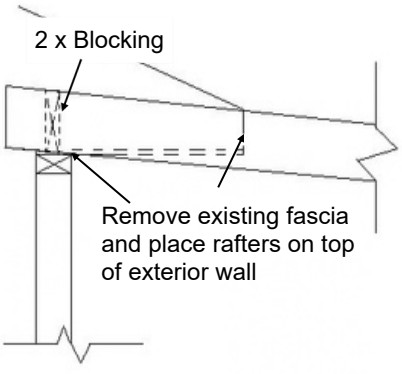
PIER DETAILS



CONNECTION OPTION 1



CONNECTION OPTION 2



CONNECTION OPTION 3

RAFTERS CANNOT BE SUPPORTED BY THE EXISTING RAFTER/TRUSS TAILS WITHOUT ENGINEERING

ELEVATIONS LESS THAN 7000 FEET

NO OVERHANG

RAFTER SPAN (feet)	(A) MINIMUM RAFTER SIZE with rafters spaced at:			(B) MINIMUM BEAM SIZE for spacing between posts at:					
	12" OC	16" OC	24" OC	5 feet	6 feet	7 feet	8 feet	9 feet	10 feet
6	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8
7	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8
8	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8
9	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10
10	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10
11	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10
12	2 x 6	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10
13	2 x 8	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12
14	2 x 8	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
15	2 x 8	2 x 10	2 x 12	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
16	2 x 8	2 x 10	2x 12	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12

2' OVERHANG

RAFTER SPAN (feet)	(A) MINIMUM RAFTER SIZE with rafters spaced at:			(B) MINIMUM BEAM SIZE for spacing between posts at:					
	12" OC	16" OC	24" OC	5 feet	6 feet	7 feet	8 feet	9 feet	10 feet
6	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10
7	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10
8	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10
9	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12
10	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
11	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
12	2 x 6	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
13	2 x 8	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	2 - 2 x 12
14	2 x 8	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10
15	2 x 8	2 x 10	2 x 12	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10
16	2 x 8	2 x 10	2x 12	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10

ELEVATIONS GREATER THAN 7000 FEET

NO OVERHANG

RAFTER SPAN (feet)	(A) MINIMUM RAFTER SIZE with rafters spaced at:			(B) MINIMUM BEAM SIZE for spacing between posts at:					
	12" OC	16" OC	24" OC	5ft	6ft	7ft	8ft	9ft	10ft
6	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8
7	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10
8	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10
9	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10
10	2 x 6	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
11	2 x 8	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
12	2 x 8	2 x 10	2 x 12	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	2 - 2 x 12
13	2 x 8	2 x 10	2 x 12	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10
14	2 x 10	2 x 10	2 x 12	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10
15	2 x 10	2 x 12	2-2 x 10	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	2 - 2 x 12	3 - 2 x 10
16	2 x 10	2 x 12	2-2 x 10	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10	3 - 2 x 10

2' OVERHANG

RAFTER SPAN (feet)	(A) MINIMUM RAFTER SIZE with rafters spaced at:			(B) MINIMUM BEAM SIZE for spacing between posts at:					
	12" OC	16" OC	24" OC	5ft	6ft	7ft	8ft	9ft	10ft
6	2 x 6	2 x 6	2 x 6	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
7	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12
8	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	2 - 2 x 12
9	2 x 6	2 x 6	2 x 8	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10
10	2 x 6	2 x 8	2 x 10	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10
11	2 x 8	2 x 10	2 x 10	2 - 2 x 6	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	2 - 2 x 12	3 - 2 x 10
12	2 x 10	2 x 10	2 x 12	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10	3 - 2 x 10
13	2 x 10	2 x 10	2 x 12	2 - 2 x 8	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10	3 - 2 x 12
14	2 x 10	2 x 12	2-2 x 10	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10	3 - 2 x 12
15	2 x 12	2 x 12	2-2 x 10	2 - 2 x 8	2 - 2 x 10	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10	3 - 2 x 12
16	2 x 12	2-2 x 10	2-2 x 10	2 - 2 x 8	2 - 2 x 10	2 - 2 x 12	3 - 2 x 10	3 - 2 x 10	3 - 2 x 12

NOTES:

- **Tables are based on Hem Fir #2 (or better) lumber; 30 PSF LL, 15 PSF DL (Asphalt Shingle <7000') -or- 40 PSF LL, 15 PSF DL (Asphalt Shingle >7000'); and 1500 PSF soil bearing pressure**
- **Triple members require a minimum 4 x 6 post**

LEDGER CONNECTION

(C)MINIMUM NUMBER OF FASTENER(S) AND SIZE[a, b, c, d, f, g, h]			
	STUD		
RAFTER SPAN	16" o.c.	24" o.c.	
6' and less	(1) 7/16"	(2) 5/16"	
6'-1" to 8'	(2) 5/16"	(2) 7/16"	
8'-1" to 10'	(2) 3/8"	(2) 7/16"	
10'-1" to 12'	(2) 7/16"	(3) 7/16"	
12'-1" to 14'	(2) 7/16"	(3) 7/16"	
14'-1" to 16'	(3) 3/8"	(4) 3/8"	
	RIM JOIST[e]		
RAFTER SPAN	12" o.c.	16" o.c.	24" o.c.
6' and less	(1) 3/8"	(1) 3/8"	(2) 3/8"
6'-1" to 8'	(1) 3/8"	(2) 3/8"	(2) 3/8"
8'-1" to 10'	(2) 3/8"	(2) 3/8"	(3) 3/8"
10'-1" to 12'	(2) 3/8"	(2) 3/8"	(3) 3/8"
12'-1" to 14'	(2) 3/8"	(3) 3/8"	(4) 3/8"
14'-1" to 16'	(2) 3/8"	(3) 3/8"	(4) 3/8"

a. The tip of the lag screw shall extend beyond the inside face of the rim joist. Through bolts shall be provided with a plate washer at the inside face of the rim joist.

b. Ledger shall be tight to exterior face of the exterior wall. Ledgers may be spaced with an approved product or connection designed in accordance with accepted engineering practice.

c. Ledger shall be flashed and/or sealed at the top to prevent water from contacting the rim joist.

d. Alternative ledger connection shall be sized for 120% of live and dead loads.

e. Ledger shall not be attached to an un-supported rim unless such connection is designed in accordance with accepted engineering practice.

f. Rim joist material shall be 2" nomimal lumber or minimum 1 1/8" engineered wood product. When solid sawn ledgers are attached to 1" thick or less engineered wood product, the ledger attachment shall be designed in accordance with accepted engeering practice.

g. Wood structural panel sheathing, gypsum board sheathing, and approved siding materials shall be permitted between the ledger and rim joist provided the distance between the face of the rim and face of the ledger does not exceed 1 inch.

h. Ledgers shall not be supported on stone or masonry veneer.

PIER SIZES

Pier Diameter (inches)	Bearing Area (Square Feet)	Maximum Load Allowed
8	0.35	524
10	0.55	818
12	0.79	1178
14	1.07	1604
16	1.40	2094
18	1.77	2651
20	2.18	3272
22	2.64	3960
24	3.14	4712
26	3.69	5531
28	4.28	6414
30	4.91	7363
32	5.59	8378
34	6.30	9457
36	7.07	10603