



### **Patio cover definition and uses**

One-story structures not exceeding 12 feet in height, open on two sides or more, attached to the existing residence. Patio covers shall be used only for recreational and outdoor living purposes.

### **Location of the permitting office:**

The Planning & Development permitting office is located on the 2<sup>nd</sup> floor of City Hall, 200 W. Washington St., Phoenix AZ 85003.

### **What information is needed to obtain a building permit?**

Construction drawings shall be required. Homeowners may prepare the drawings, provided the drawings are accurate, legible and complete. Drawings will be reviewed, checking for compliance to the Zoning Ordinance and Building Codes. Permits are issued when drawings show compliance.

### **Submittal requirements:**

- **Plot plan** showing compliance with setback and lot coverage requirements of the Zoning Ordinance and Building Code. See attached plot plan example on page 5.
- **Cross section drawing** showing the size and spacing of all framing members, rafter connections to the exterior wall, roof covering material, rafter to beam connection, beam to post connections, post to footing connections, and size and depth of all footings. See the attached cross section examples on pages 7, 8 & 9.
- **Roof framing plan** showing the layout of all framing members and the location and width of all openings in the existing wall supporting the patio. See the attached example for specific requirements on page 6.
- **Foundation plan.** Footings shall be designed using a presumptive load bearing soil value of 1,500 pounds per square foot from table R401.4.1. The concrete mix for footings shall meet a compressive strength of  $f'c = 2,500$  psi minimum from table R402.2. A minimum depth shall be placed 12" below the undisturbed ground surface per section R403.1.4.

### **Structural calculations are not required if:**

- Patio rafters are not connected to the rafter tails of the residence.
- Total roofing live and dead loads do not exceed the design criteria for all dead loads (no tile roofing) at 10 pounds per square foot (psf) and a minimum live load of 10 psf per Appendix H. The patio cover is conventionally framed and connections all meet standard practices as determined by the Planning and Development Department staff.

Note: The size of the existing headers at openings adjoining the proposed patio cover may need to be verified based on the configuration of the existing building and the depth of the patio cover. If the patio structure consists of simple conventional framing similar to the sample illustrations, you may refer to the tables enclosed for allowable size/spacing of structural members.

If the patio does not comply with the simple conventional framing consistent to the examples provided, additional assistance may be acquired at the residential counter. If framing methods are beyond conventional framing, a structural analysis/evaluation may be required by a registrant. Additional plan information may be requested if the plans provided are unclear or incomplete.

**Additional Regulations:**

- Hillside lots require a Grading and Drainage plan approval prior to permit review. For more information call (602) 262-6551.
- Historic Preservation subdivisions shall require approval by the Historic Preservation Office prior to permit review. For more information call (602) 262-7468.
- Flood plain properties shall obtain Floodplain Management approval prior to permit review. For more information call (602) 262-4960.

**Permit and Plan Review Fees**

Patio covers are subject to permit and plan review fees. Please refer to <http://phoenix.gov/development/feesandfinance/index.html> for more information about how fees are assessed.

**Inspections**

The project is not legally complete until there is an approved final inspection. Building permits shall remain valid for 180 days from the date of issuance or from the date of previous inspections. Once work has been started and inspections have commenced every 180 days, the permit shall remain valid for two years. Call (602) 262-7811 to schedule an inspection.

RAFTER SPACING TABLE 1					
RAFTER SPAN	RAFTER SPACING (CENTER TO CENTER)				
	12"	16"	19.2"	24"	
8'-0"	2 X 4	2 X 4	2 X 4	2 X 4	
9'-0"	2 X 4	2 X 6	2 X 6	2 X 6	
10'-0"	2 X 6	2 X 6	2 X 6	2 X 6	
11'-0"	2 X 6	2 X 6	2 X 6	2 X 6	
12'-0"	2 X 6	2 X 6	2 X 6	2 X 8	
RAFTERS SHALL BE GRADE MARKED DOUGLAS FIR GRADE #2 OR BETTER					

MINIMUM HEADER/BEAM SIZES TABLE 2					
RAFTER SPAN (12" O.H.)	POST/COLUMN SPACING				
	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
8'-0"	4" X 6"	4" X 6"	4" X 8"	4" X 8"	4" X 8"
9'-0"	4" X 6"	4" X 6"	4" X 6"	4" X 8"	4" X 8"
10'-0"	4" X 6"	4" X 6"	4" X 8"	4" X 8"	4" X 10"
11'-0"	4" X 6"	4" X 6"	4" X 8"	4" X 10"	4" X 10"
12'-0"	4" X 8"	4" X 8"	4" X 8"	4" X 10"	4" X 10"

MINIMUM "SQUARE" FOOTING SIZES TABLE 3					
POST SPACING	RAFTER SPAN (12" MAX OVERHANG)				
	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
8'-0"	14" SQ	14" SQ	14" SQ	14" SQ	14" SQ
9'-0"	14" SQ	14" SQ	14" SQ	14" SQ	16" SQ
10'-0"	14" SQ	14" SQ	16" SQ	16" SQ	18" SQ
11'-0"	14" SQ	16" SQ	16" SQ	16" SQ	18" SQ
12'-0"	16" SQ	16" SQ	16" SQ	16" SQ	18" SQ

ROOF SLOPES FOR ROOF COVERINGS TABLE 4			
TYPE OF ROOFING	SLOPE	TYPE OF ROOFING	SLOPE
ASPHALT SHINGLES	2:12	BUILT-UP ROOFS	¼:12
CLAY AND CONCRETE TILE	2-1/2:12	MODIFIED BITUMEN	¼:12
MINERAL-SURFACE ROLL	1:12	SPRAY POLYURETHANE FOAM	¼:12
WOOD SHINGLE OR SHAKES	3:12	METAL ROOF SHINGLES	3:12
THE SLOPES ABOVE ARE MINIMUM UNITS HORIZONTAL TO UNITS VERTICAL			
1. FRAMING HARDWARE SHALL BE ICC APPROVED FOR THE INTENDED USE AND INSTALLED PER MANUFACTURES SPECIFICATIONS USING ALL RECOMMENDED FASTENERS. 2. ROOF SHEATHING SHALL BE CONTINUOUS OVER 2 OR MORE RAFTER SPANS, FACE GRAIN SHALL BE PERPENDICULAR TO SUPPORTS AND MACIMUM SPAN SHALL BE AS FOLLOWS. 3. CONCRETE SHALL HAVE MINIMUM STRENGH OF 2000 PSI 28 DAYS. 4. OPEN LATTICE OR TRELLIS SHALL BE PRESSURE TREATED LUMBER.			



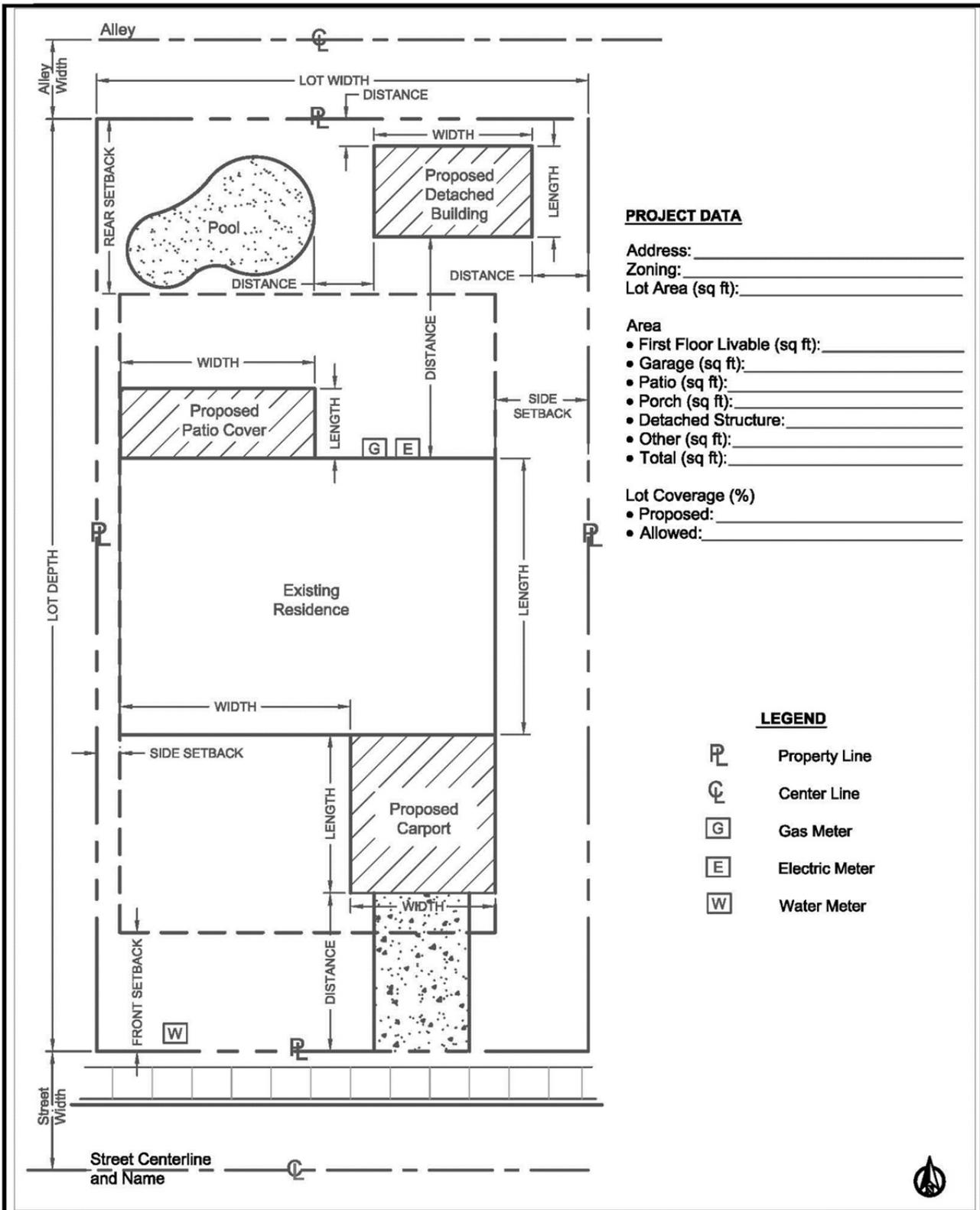
Prior to developing a plot plan, contact the Planning and Development Department's Zoning section at 602-262-7131 to verify the property's zoning, required setbacks and allowable lot coverage. Property dimensions and easements can be found on the recorded subdivision plat. Subdivision plats can be viewed online through Maricopa County at [recorder.maricopa.gov/maps](http://recorder.maricopa.gov/maps)

Two copies of the plot plan must be submitted with each permit application and should include the following minimum information:

**Note:** If submitting through the Electronic Plan Review system, multiple copies of submittal documents are not required.

- North arrow and scale (suggested scale 1" = 20')
- Location and dimension of all property lines
- Right of way dimensions
- Location and dimension of all easements
- Location and dimensions of all sight visibility triangles
  - Structures and landscaping within a sight visibility triangle shall have a maximum height of 3 feet
  - Arterial street to local streets- 33' X 15'
  - Local street to local street - 33' X 33'
  - Local street to alley - 20' X 20'
  - Alley to alley - 15' X 15'
  - Driveway to local street - 20' X 10'
- Location of existing and proposed structures
- Delineate proposed construction from existing
- Actual and required building setbacks
- Location of electric, gas and water services
- Location, type and height of proposed fence (identify on plan as -x-x-x-)
- Zoning district
- Lot area
- Existing, proposed and total square feet under roof
- Allowable lot coverage
- Proposed lot coverage
  - Roof area ÷ net area of lot  
(first three feet of roof overhang not included in roof area)

Please use the template on page 2 to help with your plot plan.



**PROJECT DATA**

Address: \_\_\_\_\_  
 Zoning: \_\_\_\_\_  
 Lot Area (sq ft): \_\_\_\_\_

- Area**
- First Floor Livable (sq ft): \_\_\_\_\_
  - Garage (sq ft): \_\_\_\_\_
  - Patio (sq ft): \_\_\_\_\_
  - Porch (sq ft): \_\_\_\_\_
  - Detached Structure: \_\_\_\_\_
  - Other (sq ft): \_\_\_\_\_
  - Total (sq ft): \_\_\_\_\_

- Lot Coverage (%)**
- Proposed: \_\_\_\_\_
  - Allowed: \_\_\_\_\_

**LEGEND**

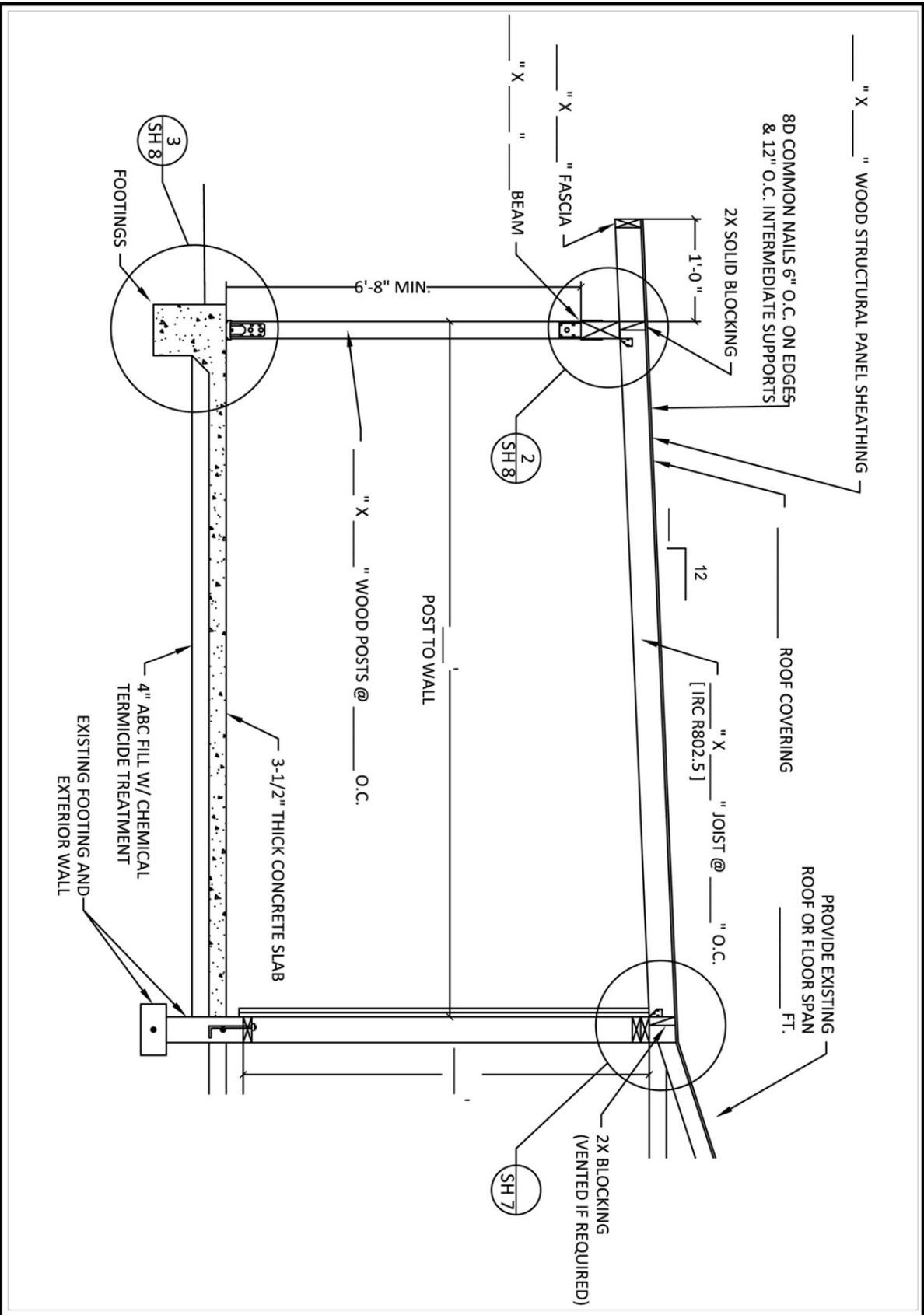
- Property Line
- Center Line
- Gas Meter
- Electric Meter
- Water Meter

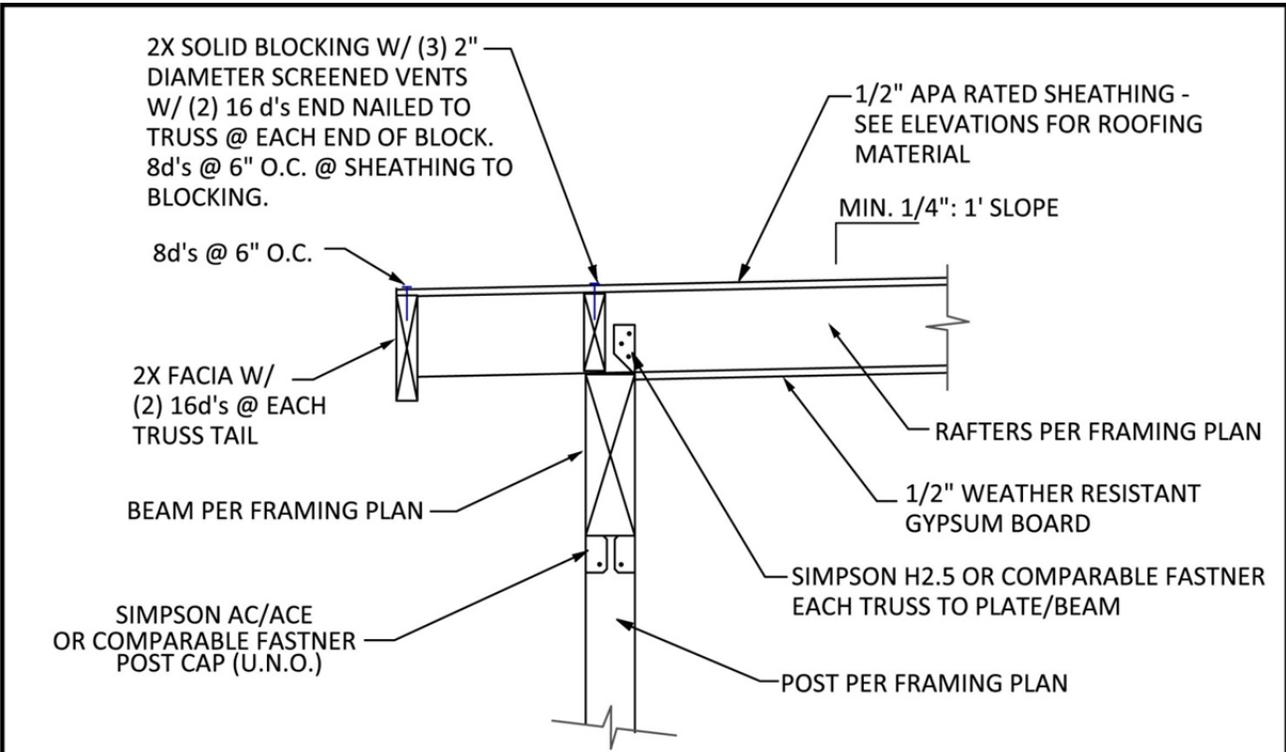




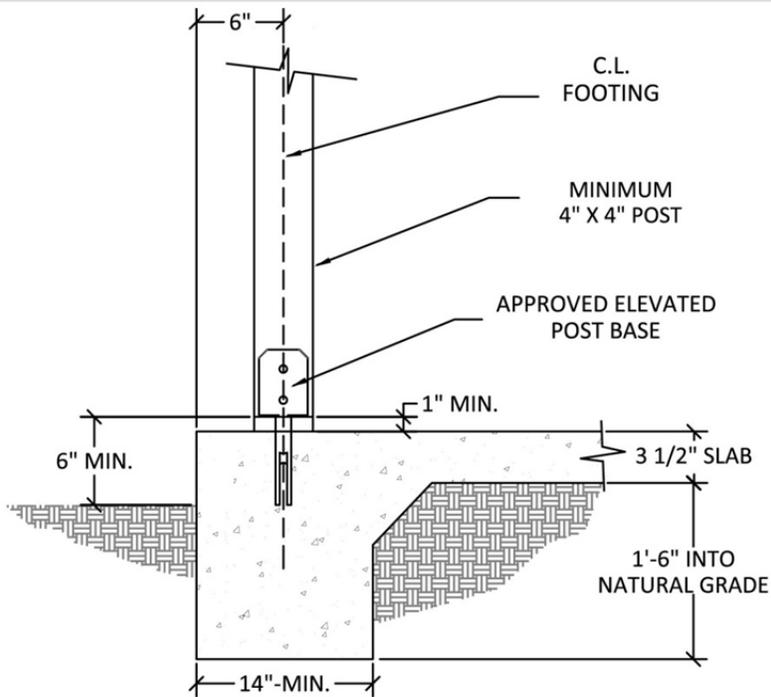
CROSS SECTION DRAWING - WOOD POST

DATE: 12/15/11  
 DWG FILE: Wood Patio Cross Section  
 PAGE:



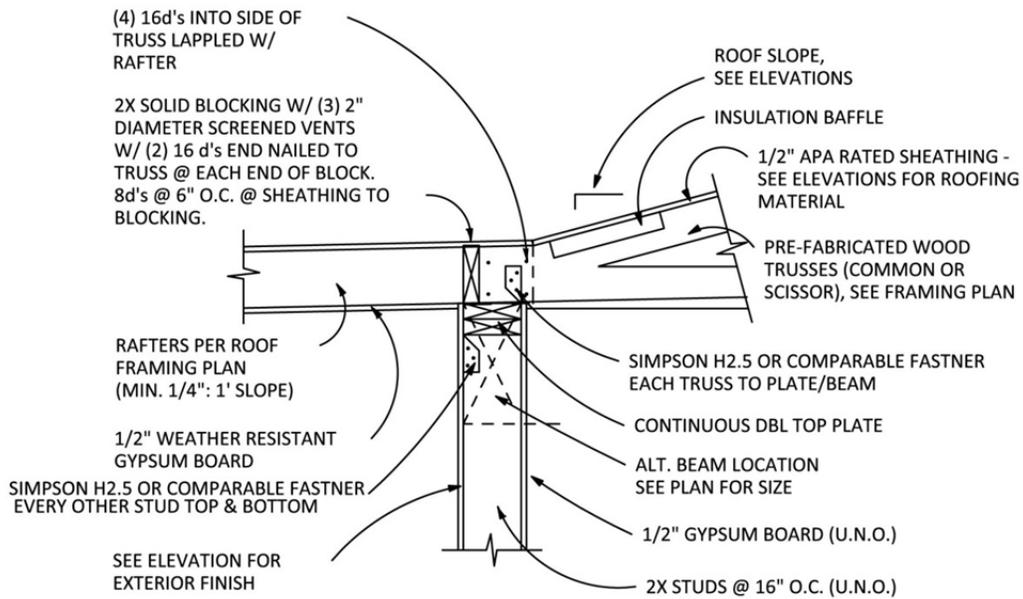


RAFTER TO BEAM DETAIL 2



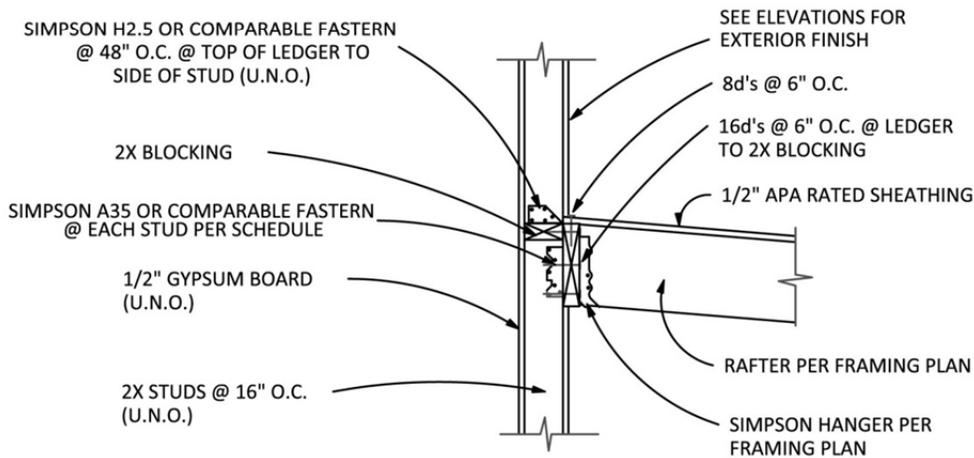
FOOTING DETAIL 3





ALLOW FOR FREE HORIZONTAL MOVEMENT AT ONE SUPPORT AT SCISSOR TRUSS LOCATIONS. INSTALL NAILS IN H2.5 AFTER LOADING ROOF WITH ALL MATERIALS.

NOTE: USE SAME ANCHORAGE @ TRUSS TO BEAM CONNECTION (U.N.O.)



RAFTER SPAN	ROOF LEDGER & CONNECTION	DECK LEDGER & CONNECTION
0'-0" TO 10'-0"	2X6 CONT. LEDGER W/ (3) 16d's @ EACH STUD	2x8 CONT. LEDGER W/ (5) 16d's @ EACH STUD
10'-1" TO 13'-0"	2x8 CONT. LEDGER W/ (4) 16d's @ EACH STUD	2x* CONT. LEDGER W/ (4) 16d's @ EACH STUD W/ (1) SIMP. A35 @ EACH STUD
13'-1" TO 15' MAX	2x8 CONT. LEDGER W/ (4) 16d's @ EACH STUD W/ (1) SIMP. A35 @ EACH STUD	N/A

