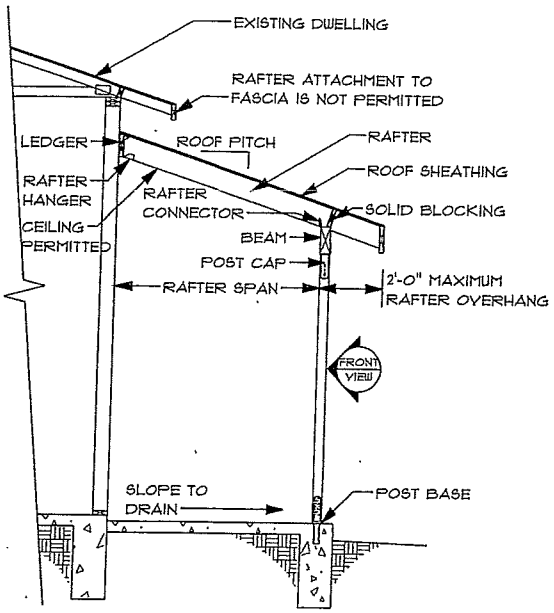
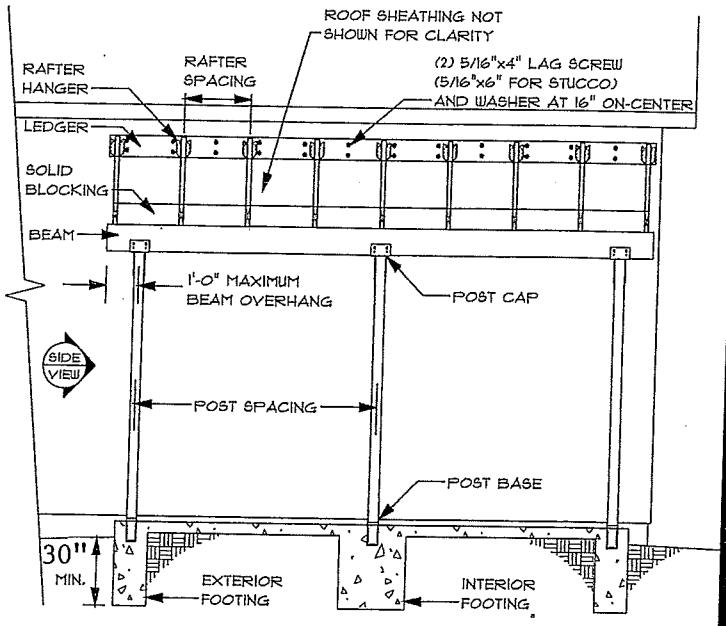
# SINGLE FAMILY DWELLING PATIO COVER
## (LIGHT ROOFING MATERIAL)

LIMITED TO 12'-0" MAXIMUM SPAN AND
10'-0" MAXIMUM POST HEIGHT IN ACCORDANCE WITH THE
**2018** INTERNATIONAL RESIDENTIAL CODE (IRC)

NORTHERN NEVADA CHAPTER INTERNATIONAL CODE COUNCIL




## SIDE VIEW
NO SCALE




## FRONT VIEW
NO SCALE

| RAFTERS | | |
|---|---|---|
| MIN. SIZE | MAX. SPACING | MAX. SPAN |
| 2x4 | 12" | 9'-10" |
| | 16" | 8'-11" |
| | 24" | 7'-10" |
| 2x6 | 12" | 12'-0" |
| | 16" | 12'-0" |
| | 24" | 11'-9" |
| 2x8 | 12" | 12'-0" |
| | 16" | 12'-0" |
| | 24" | 12'-0" |

| HEADER | | | | | |
|---|---|---|---|---|---|
| | MAX. SPAN | | | | |
| MAX. POST SPACING | 8'-0" | 9'-0" | 10'-0" | 11'-0" | 12'-0" |
| 8'-0" | 4x6 | 4x6 | 4x6 | 4x8 | 4x8 |
| 9'-0" | 4x8 | 4x8 | 4x8 | 4x8 | 4x8 |
| 10'-0" | 4x8 | 4x8 | 4x8 | 4x8 | 4x8 |
| 11'-0" | 4x8 | 4x8 | 4x10 | 4x10 | 4x10 |
| 12'-0" | 4x10 | 4x10 | 4x10 | 4x10 | 4x10 |

1. ALL LUMBER SHALL BE DOUGLAS FIR #2 U.N.O.
2. ALL CONCRETE SHALL BE 3,500 PSI (5%-7% AIR ENTRAINED)

| MINIMUM SQUARE FOOTING SIZE (OPTIONAL ROUND FOOTING SIZE) | | | | | | |
|---|---|---|---|---|---|---|
| | | MAX. RAFTER SPAN | | | | |
| MAX. POST SPACING | FOOTING LOCATION | 8'-0" | 9'-0" | 10'-0" | 11'-0" | 12'-0" |
| 8'-0" | EXTERIOR | 12" (12") | 12" (12") | 12" (12") | 12" (12") | 12" (14") |
| | INTERIOR | 12" (14") | 14" (14") | 14" (16") | 14" (16") | 14" (16") |
| 9'-0" | EXTERIOR | 12" (12") | 12" (12") | 12" (12") | 12" (14") | 12" (14") |
| | INTERIOR | 14" (16") | 14" (16") | 14" (16") | 14" (16") | 16" (18") |
| 10'-0" | EXTERIOR | 12" (12") | 12" (12") | 12" (14") | 12" (14") | 12" (14") |
| | INTERIOR | 14" (16") | 14" (16") | 16" (18") | 16" (18") | 16" (18") |
| 11'-0" | EXTERIOR | 12" (12") | 12" (14") | 12" (14") | 12" (14") | 14" (14") |
| | INTERIOR | 14" (16") | 16" (18") | 16" (18") | 16" (18") | 16" (18") |
| 12'-0" | EXTERIOR | 12" (14") | 12" (14") | 12" (14") | 14" (14") | 14" (16") |
| | INTERIOR | 16" (18") | 16" (18") | 16" (18") | 18" (20") | 18" (20") |

### PROJECT DESIGN CRITERIA

OWNER: _____ ADDRESS: _____

PARCEL NO.: _____ OVERALL DIMENSION: _____ TOTAL SQ. FT.: _____

ELEVATION ABOVE SEA LEVEL: _____ GROUND SNOW LOAD: 20-PSF DESIGN WIND LOAD 105-MPH, (3-SECOND GUST): EXPOSURE C SEISMIC DESIGN CATEGORY: D2

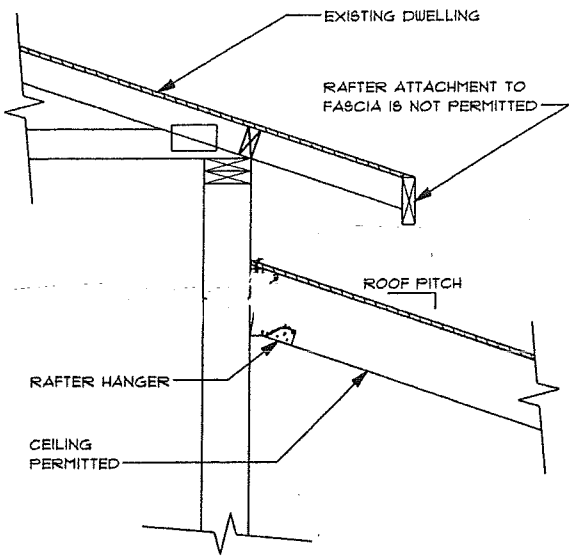
DESIGN ROOF LIVE LOAD: 20-PSF DESIGN ROOF DEAD LOAD: 10-PSF ALLOWABLE DEFLECTION: L/240 DESIGN SOIL BEARING PRESSURE: 1500-PSF

ROOF COVERING: _____ ROOF SHEATHING (1/2" MINIMUM): _____ ROOF PITCH (2:12 MIN. 5:12 MAX.): _____ LEDGER SIZE (LxW): _____

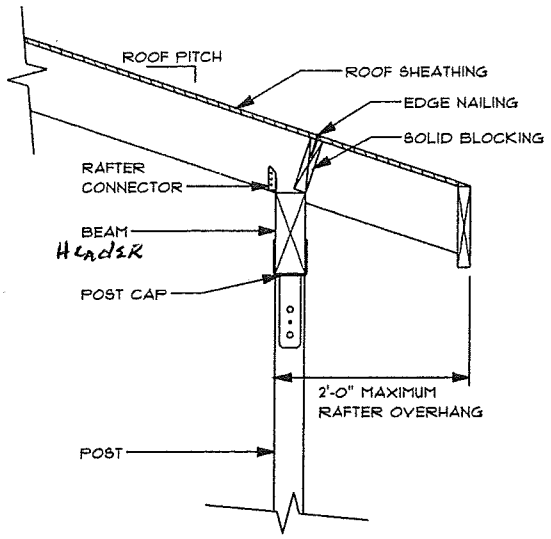
RAFTER SIZE: _____ RAFTER SPACING (24" MAXIMUM): _____ RAFTER SPAN (12'-0" MAXIMUM): _____ RAFTER HANGER (212# MIN. UPLIFT) (360# MIN. DOWNLOAD): _____

RAFTER CONNECTOR TO BEAM (369# MIN. UPLIFT): _____ BEAM SIZE: _____ POST SIZE (LxWxH) (4"x4"x6'-8" MIN.): _____ POST SPACING (12'-0" MAXIMUM): _____

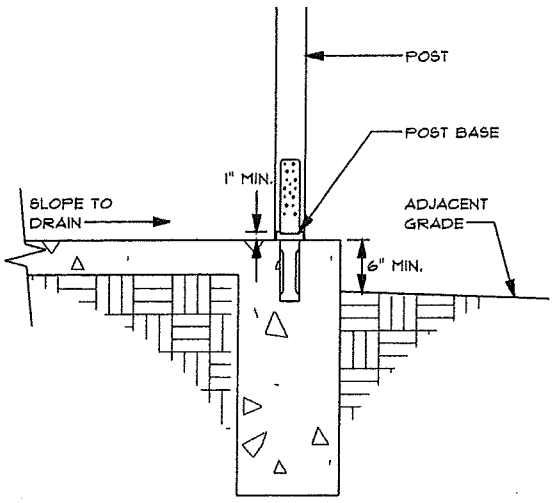
POST CAP (2,214# MIN. UPLIFT): _____ POST BASE (2,214# MIN. UPLIFT): _____ EXT. FOOTING SIZE (SQUARE/ROUND): _____ INT. FOOTING SIZE (SQUARE/ROUND): _____



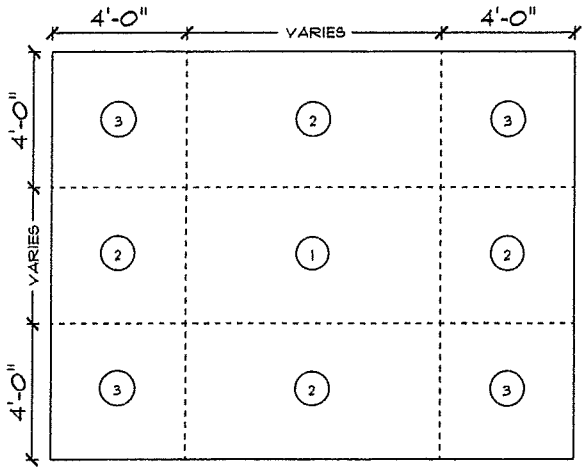

LEDGER CONNECTION (NO SCALE)




RAFTER/BEAM/POST CAP CONNECTION (NO SCALE)




POST BASE CONNECTION (NO SCALE)




FASTENER: 8d COMMON NAIL

| ZONE | EDGE NAILING | FIELD NAILING |
|---|---|---|
| 1 | 6" ON-CENTER | 12" ON-CENTER |
| 2 & 3 | 6" ON-CENTER | 6" ON-CENTER |

ROOF SHEATHING NAILING SCHEDULE (NO SCALE)

## GENERAL NOTES

1. ALL LUMBER SHALL BE DOUGLAS FIR #2 U.N.O.
2. ALL CONCRETE SHALL BE 3,500 PSI (5%-7% AIR ENTRAINED)
3. ALL HARDWARE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. NUMBER, TYPE, AND SPACING OF FASTENERS FOR STRUCTURAL MEMBERS SHALL COMPLY WITH IRC TABLE R602.3(1).
5. CLAY AND CONCRETE TILE REQUIRE TWO LAYERS OF UNDERLAYMENT FOR ROOF SLOPES FROM 2-1/2:12 TO 4:12. A MINIMUM ROOF SLOPE OF 2-1/2:12 IS REQUIRED FOR CLAY AND CONCRETE TILE.

## HEADER TABLE FOR ROOF SPANS Up to 15'-FOR PATIO COVER ONLY

| Length of Span | Load Bearing Header Size | | Non-Load Bearing Header Size | |
|---|---|---|---|---|
| 4' or less | 4"x4" | ******* | 4"x4" | ******* |
| 4' to 6' | 4"x6" | ******* | 4"x4" | ******* |
| 6' to 8' | 4"x8" | 6"x6" | 4"x6" | 6"x6" |
| 8' to 10' | 4"x10" | 6"x8" | 4"x8" | 6"x6" |
| 10' to 12' | 4"x10" | 6"x8" | 4"x8" | 6"x6" |
| 12' to 14' | 4"x12" | 6"x10" | 4"x8" | 6"x6" |
| 14' to 16' | 4"x14" | 6"x12" | 4"x10" | 6"x8" |

## LOAD BEARING EXTERIOR HEADERS-ROOF & CEILING ONLY (IRC TABLE R502.5(1))

| BUILDING WIDTH | | | | | | |
|---|---|---|---|---|---|---|
| | 20' | | 28' | | 36' | |
| Size | Span | # of Jack Studs | Span | # of Jack Studs | Span | # of Jack Studs |
| 2-2x4 | 3'6" | 1 | 3'2" | 1 | 2'10" | 1 |
| 2-2x6 | 5'5" | 1 | 4'8" | 1 | 4'2" | 1 |
| 2-2x8 | 6'10" | 1 | 5'11" | 2 | 5'4" | 2 |
| 2-2x10 | 8'5" | 2 | 7'3" | 2 | 6'6" | 2 |
| 2-2x12 | 9'9" | 2 | 8'5" | 2 | 7'6" | 2 |
| 2-2x8 | 8'4" | 1 | 7'5" | 2 | 6'8" | 2 |
| 3-2x10 | 10'6" | 1 | 9'1" | 2 | 8'2" | 2 |
| 3-2x12 | 12'2" | 2 | 10'7" | 2 | 9'5" | 2 |
| 4-2x8 | 9'2" | 1 | 8'4" | 1 | 7'8" | 1 |
| 4-2x10 | 11'8" | 1 | 10'6" | 1 | 9'5" | 2 |
| 4-2x12 | 14'1' | 1 | 12'2" | 2 | 10'11" | 2 |

## Rafter Spans for Douglas Fir-Larch #2 – Ceiling not attached to rafters (R802.5.1(1))

| Rafter Spacing | 2x4 | 2x6 | 2x8 | 2x10 | 2x12 |
|---|---|---|---|---|---|
| 12" o.c. | 10'10" | 16'7" | 21' | 25'8" | * |
| 16' o.c. | 9'10" | 14'4" | 18'2" | 22'3" | 25'9" |
| 19.2 o.c. | 8'11" | 13'1" | 16'7" | 20'3" | 23'6" |
| 24" o.c. | 8'0" | 11'9" | 14'10" | 18'2" | 21'0" |

*Span exceeds 26 feet in length

## Rafter Spans for Douglas Fir-Larch #2 – Ceiling attached to rafters (R802.5.1(2))

| Rafter Spacing | 2x4 | 2x6 | 2x8 | 2x10 | 2x12 |
|---|---|---|---|---|---|
| 12" o.c. | 9'10" | 15'6" | 20'5" | 25'8" | * |
| 16' o.c. | 8'11" | 14'1" | 18'2" | 22'3" | 25'9" |
| 19.2 o.c. | 8'5" | 13'1" | 16'7" | 20'3" | 23'6" |
| 24" o.c. | 7'10" | 11'9" | 14'10" | 18'2" | 21' |

*Span exceeds 26 feet in length

Rafter Ties:
Where ceiling joists are not parallel to rafters, the rafters shall be tied to 2"x4" minimum size rafter ties and installed in accordance with the connection requirements in Table R802.5.1(9) or connections of equivalent capacities will be provided. (R802.3.1)

Collar Ties:
Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space in accordance with Table R602.3(1). Collar ties shall be a minimum of 1"x4", spaced not more than 4 feet on center. (R802.3.1.)