



COMMUNITY DEVELOPMENT DEPARTMENT
Building Inspection Division
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Attached Patio Cover Sample

January 2008

General

Purpose

The sample illustrations show how an attached unenclosed patio structure may be built using conventional light wood-frame construction guidelines. The conventional method allows "repetitive" members in the designs of walls, floors and ceiling; they are prescriptive and do not ordinarily require a structural design to comply with the code. For information regarding plan submittals and specific design limitations for residential patio covers refer to Policy & Procedure No. B-08-04 "Plan Submittal for Patio Covers and Similar Accessory Buildings (Sheds • Arbors • Trellises).

Design Provisions

Patio Cover Limitations

The following patio cover illustrations are only applicable in residential dwellings classified as R-3 Occupancies.

Patio covers are **not** designed or intended to be used as room additions which require compliance with code provisions such as heating, waterproofing, and normal live and wind loads. Furthermore, patio covers cannot always be converted to complying room additions.

What information is needed to obtain a building permit?

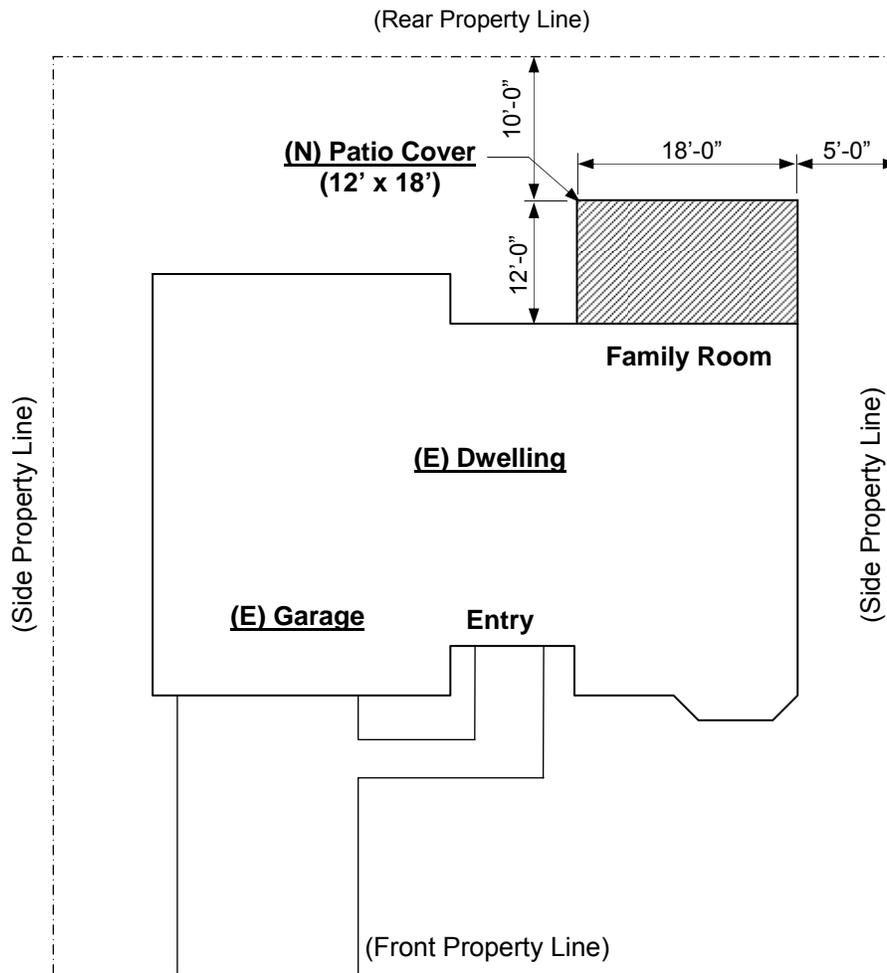
Included in the plan submittal should be the following information which clearly depicts the proposed patio cover construction and its relationship to the entire lot. Information such as the size and spacing of all framing members; attachment detail to the exterior wall; roof covering material, connection specifications for beam to post, and for post to footing, etc.

Samples of plans are illustrated on the next pages for clarification; additional plan information may be requested if the plans provided are unclear or incomplete. If the patio structure consists of a simple design similar to the sample illustrations, you may refer to the tables enclosed for allowable size/spacing of structural members. Otherwise, a structural analysis/evaluation may be required by a California licensed engineer for structures of unusual shape and for structures with tile roofing materials (i.e., cellulose, cement). Plan size (11"X17")

- Site Plan – **3 (showing all structures)**
- Elevation(s) - **2**
- Roof Framing - **2**
- Cross-Section - **2**
- Framing Details - **2**
- Electrical - **2 (if applicable)**

SETBACK AND LOT COVERAGE REQUIREMENTS FOR PATIOS

1. Attached covered patios shall not be closer than 20-feet to the front property line, 10-feet to the rear property line, and 5-feet to the side property line. The minimum setback for the street side yard of a corner lot (the long side of the corner frontage) is 10-feet. The minimum setback from an alley is 5-feet. The roof (eave) may extend 2-feet into these setbacks.
2. The maximum area of a lot that may be covered by roofed structures (house, patio, garage, carport, shed, etc.) is 45%.
3. PLOT PLAN shall show:
 - a. Lot dimensions and easements
 - b. Size and location of existing structures and new patio
 - c. Distance between patio and property lines
 - d. Total covered area square footage (i.e. House, garage, shed, and new proposed patio).
 - e. Location of electrical, lighting & ceiling fixtures.
 - f. Location of electrical service panel (meter main)
4. ARCHITECTURAL, STRUCTURAL, and DETAIL SHEETS shall show:
 - a. Foundation
 - g. Framing plan shall show size of headers (beams), posts, post spacing, roof rafter size and spacing, attachments to walls, roof sheathing, type of roofing – roof pitch or slope.

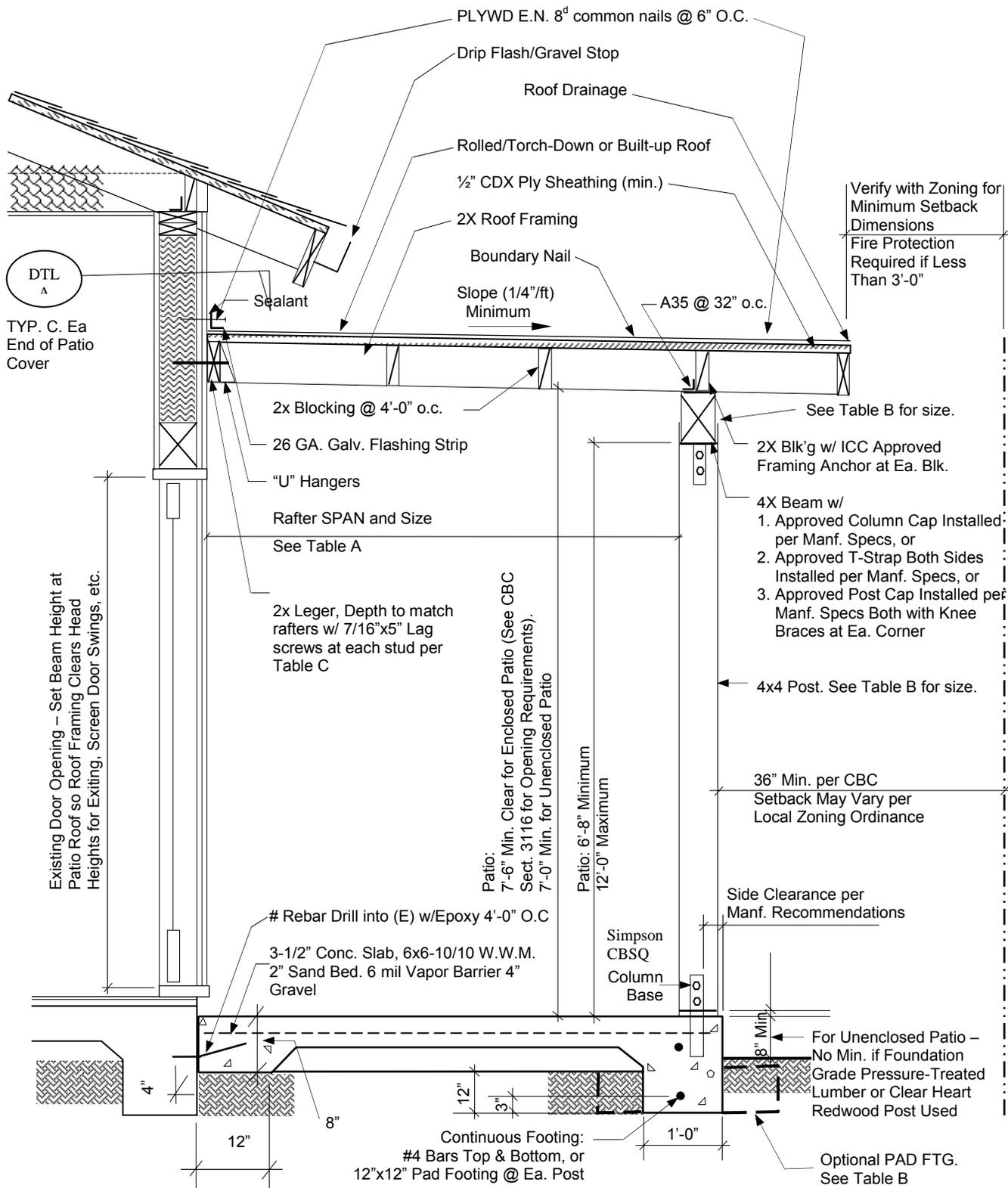


Pleasant Street

Mr. & Mrs. Right 555 Gateway Street, Lodi, CA A.P.N. 00-100-2000 Scope of Work: New Attached 12'x18' Patio Cover Designed by <i>Ideal Patios</i>
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Site Plan

Scale: 1" = 20'-0"



Verify with Zoning for Minimum Setback Dimensions
Fire Protection Required if Less Than 3'-0"

DTL
TYP. C. Ea End of Patio Cover

Existing Door Opening – Set Beam Height at Patio Roof so Roof Framing Clears Head Heights for Exiting, Screen Door Swings, etc.

2x Blocking @ 4'-0" o.c.
26 GA. Galv. Flashing Strip
"U" Hangers
Rafter SPAN and Size
See Table A

2x Leger, Depth to match rafters w/ 7/16"x5" Lag screws at each stud per Table C

Patio: 7'-6" Min. Clear for Enclosed Patio (See CBC Sect. 3116 for Opening Requirements).
7'-0" Min. for Unenclosed Patio

Patio: 6'-8" Minimum
12'-0" Maximum

See Table B for size.
2X Blk'g w/ ICC Approved Framing Anchor at Ea. Blk.
4X Beam w/
1. Approved Column Cap Installed per Manf. Specs, or
2. Approved T-Strap Both Sides Installed per Manf. Specs, or
3. Approved Post Cap Installed per Manf. Specs Both with Knee Braces at Ea. Corner

4x4 Post. See Table B for size.

36" Min. per CBC
Setback May Vary per Local Zoning Ordinance

Side Clearance per Manf. Recommendations

Simpson CBSQ Column Base

Rebar Drill into (E) w/Epoxy 4'-0" O.C
3-1/2" Conc. Slab, 6x6-10/10 W.W.M.
2" Sand Bed. 6 mil Vapor Barrier 4" Gravel

8" Min.
For Unenclosed Patio – No Min. if Foundation Grade Pressure-Treated Lumber or Clear Heart Redwood Post Used

Continuous Footing: #4 Bars Top & Bottom, or 12"x12" Pad Footing @ Ea. Post

Optional PAD FTG. See Table B

PROPERTY LINE

- Notes:**
1. All concrete to have a minimum compressive strength of 2500 PSI @28 days.
 2. Concrete reinforcing steel to be ASTM615 grade 40 steel (min).

**Cross-Section
(Refer to Tables)**

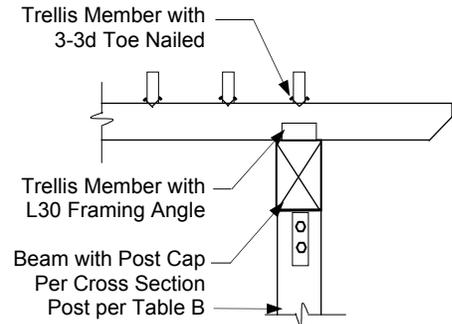
TABLE A – ROF RAFTERS/CEILING JOISTS

ALLOWABLE SPANS FOR DF #2 ROOF RAFTERS			ALLOWABLE SPANS FOR DF #2 CEILING JOISTS		
Light Dead Load (up to 15 psf) /Max. Roofing Load: 6 psf (Composition Roofing) (L/A=240) Live Load: 20 psf			Dead Load: 5 psf/Live Load: 10 psf (L/A=240)		
RAFTER SIZE	SPACING	ALLOWABLE SPAN	JOIST SIZE	SPACING	ALLOWABLE SPAN
2x6	24"	10'-8"	2x4	24"	9'-10"
	16"	12'-9"		16"	11'-3"
	12"	14'-2"		12"	12'-5"
2x8	24"	13'-7"	2x6	24"	14'-10"
	16"	16'-11"		16"	17'-8"
	12"	18'-6"		12"	19'-6"
2x10	24"	16'-8"	2x8	24"	18'-9"
	16"	20'-6"		16"	23'-0"
	12"	23'-7"		12"	25'-8"
2x12	24"	19'-4"	2x10	24"	22'-11"
	16"	23'-9"		16"	26'-0"
	12"	26'-0"		12"	26'-0"

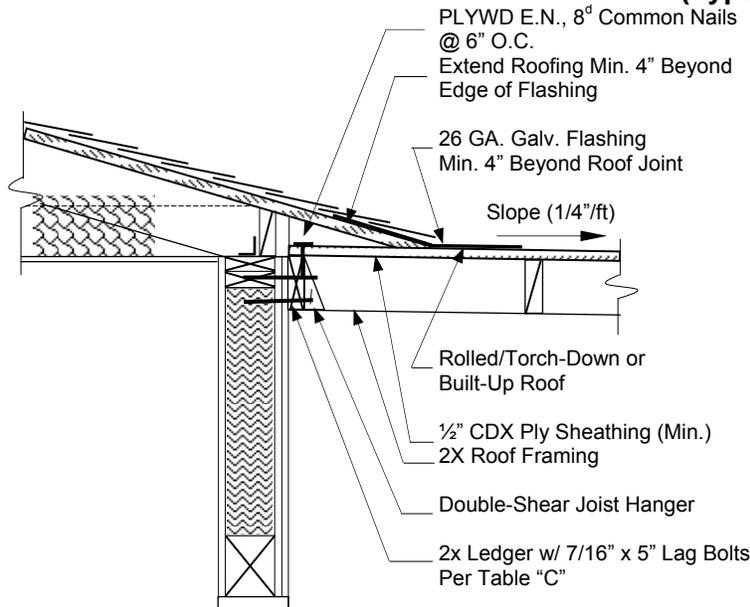
Table A – Roof Rafters/Ceiling Joists

Type V construction is a classification of buildings by construction materials and methods. It is the least restrictive permitted by the California Building Code and includes light, wood-frame construction. This sheet is for information and reference only and is not substitute for accurate drawings prepared for each proposed construction project.

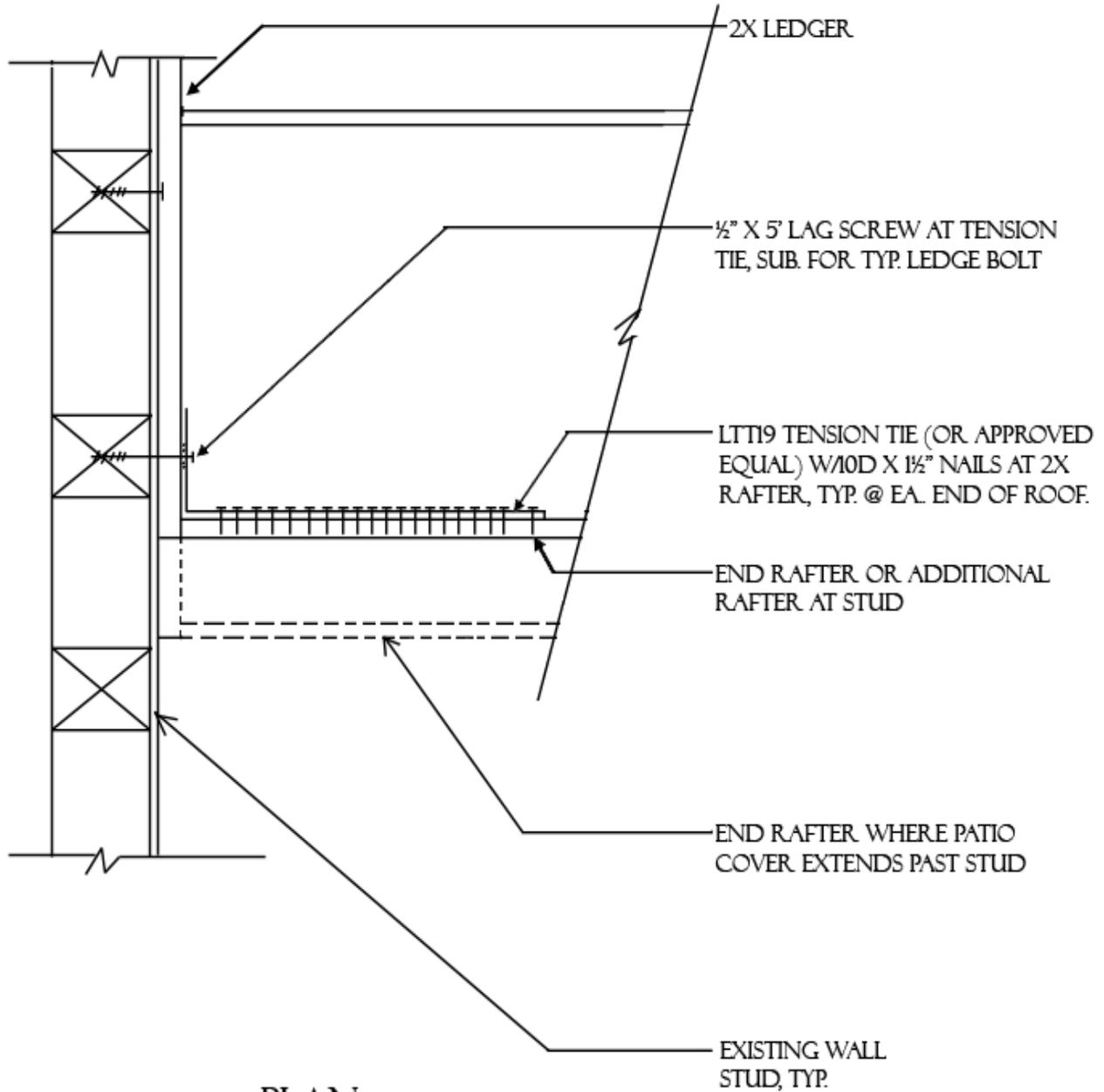
NOTE: Stucco or Plaster ceilings are not to be used at framing show in SPAN Tables.



**Trellis Connection Detail
(Typical for Trellises)**



Alternate Connection Detail
(Typical for Patio Covers)



PLAN

DTL
A

PATIO COVER ANCHORAGE

Table B - Beams

Rafter Span	Beam Span (max)	Beam Size (l)	Pose Size (2)	Optional (4) Pad Footing
Up to 12'-0"	8'-0"	4x8	4x4	16" sq x 12" DP
	10'-0"	4x8	4x4	16" sq x 12" DP
	12'-0"	4x10	4x6 (3)	16" sq x 12" DP
	14'-0"	4x12	4x6 (3)	16" sq x 12" DP
	16'-0"	6x12	4x6 (3)	16" sq x 12" DP
12'-0" to 20'-0"	8'-0"	4x8	4x6 (3)	16" sq x 12" DP
	10'-0"	4x10	4x6 (3)	16" sq x 12" DP
	12'-0"	4x12	4x6 (3)	16" sq x 12" DP
	14'-0"	4x12	6x6	18" sq x 12" DP
	16'-0"	6x14	6x6	18" sq x 12" DP
20'-0" to 26'-0"	8'-0"	4x10	4x6 (3)	16" sq x 12" DP
	10'-0"	4x12	6x6	16" sq x 12" DP
	12'-0"	4x12	6x6	18" sq x 12" DP
	14'-0"	4x14	6x6	21" sq x 12" DP

NOTES:

1. All beams are to be Douglas Fir #2.
2. Posts are to be Douglas Fir #2.
3. Install posts so faces of posts are flush with faces of beams.
4. PAD footings are to have #4 bars C 12" O.C. (max) each way to locate 3" clear from the bottom of the footings.

Table C - Ledger Bolting

Ledge Size	Wall Stud Spacing	Number of 7/16" Lag screws
2X6	16" O.C.	2 per stud
	24" O.C.	2 per stud
2X8	16" O.C.	2 per stud
	24" O.C.	3 per stud
2X10	16" O.C.	3 per stud
	24" O.C.	4 per stud
2X12	16" O.C.	3 per stud
	24" O.C.	4 per stud