



Patio Cover Example

INFORMATION GUIDELINE

June 2004

City of Concord • Building & Neighborhood Services • 1950 Parkside Drive, MS/51 • Concord, CA 94519 • (925) 671-3107 • Fax (925) 680-4877

TYPICAL PATIO COVER CONSTRUCTION

ROOFING MATERIAL PER UBC CHAPTER 15 AND ALL APPLICABLE COUNTY ORDINANCES.
ROOFING TYPE _____

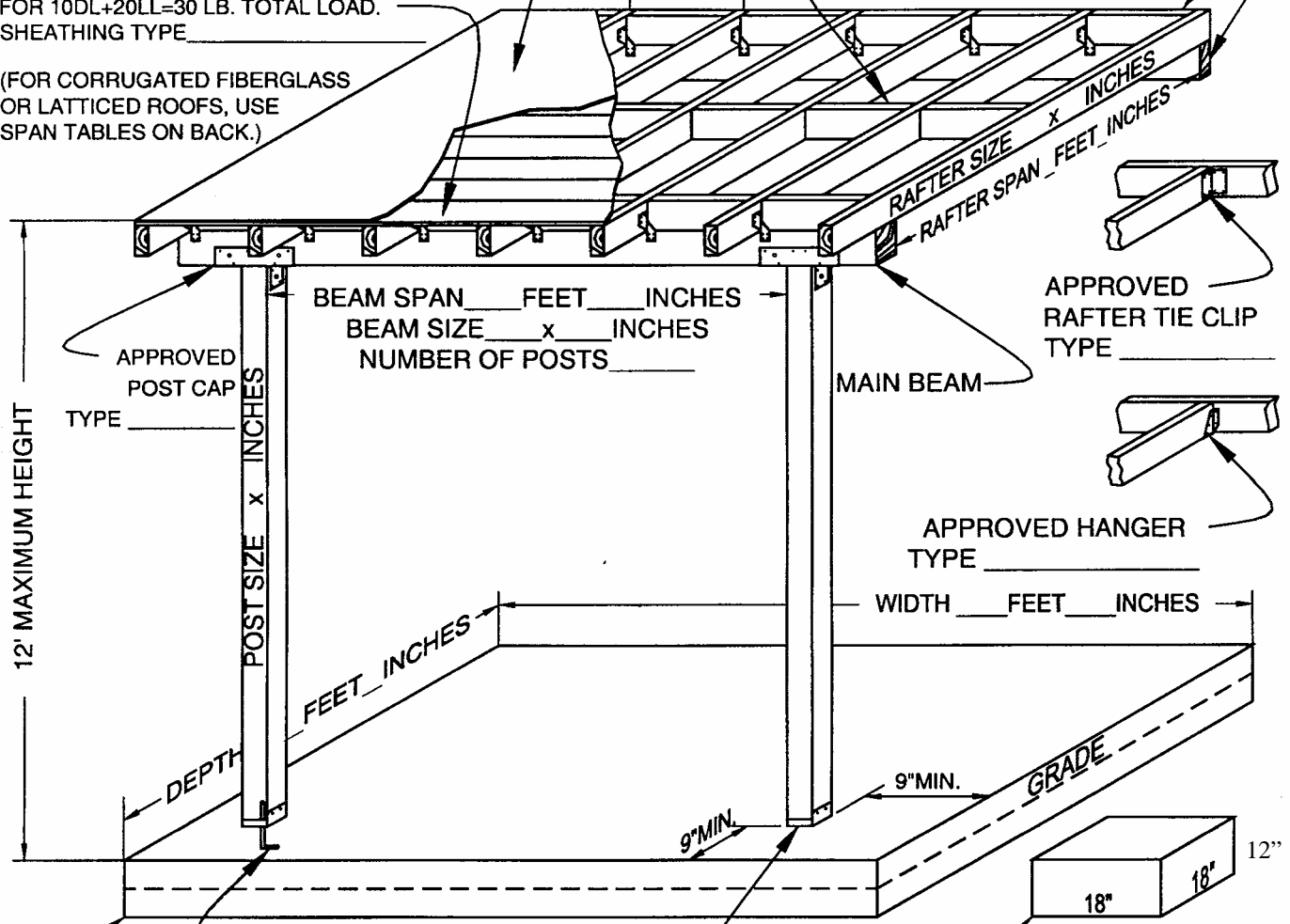
FOR SOLID ROOFS USE UBC SPAN TABLES 23-IV-R7 FOR 10DL+20LL=30 LB. TOTAL LOAD.
SHEATHING TYPE _____

(FOR CORRUGATED FIBERGLASS OR LATTICED ROOFS, USE SPAN TABLES ON BACK.)

RAFTER SPACING _____ INCHES O.C.

MIN. 2x D.F.#2 LEDGER, FASTENED TO WALL STUDS PER '97 UBC Table 23-II-B-1

SOLID BLOCKING PER '97 UBC Sec. 2316



3-1/2" MINIMUM SLAB THICKNESS

ANCHORAGE SHALL BE INSTALLED PER MANUFACTURERS AND EVALUATION REPORTS
TYPE _____

APPROVED POST BASE TYPE _____

18x18 CONCRETE POST PIER
MAX POST LOAD = 2,250 LB.
Max. 1000 Lbs sq. ft. Soil bearing
Minimum 2500 PSI Concrete

- REFER TO UBC TABLE 23-II-B-1 FOR TYPICAL NAILING REQUIREMENTS.
- REFER TO UBC APPENDIX CHAPTER 31 DIVISION III FOR ALLOWABLE PATIO ENCLOSURE CRITERIA.
- ALL CONNECTIONS TO RESIST 10 POUNDS PER FOOT UPLIFT.
- POST LOAD ON 3-1/2" SLAB NOT TO EXCEED 750 POUNDS

Allowable Spans

Patio Roof Column Height Table				
Allowable Column Loads				
Grade	Allowable load on post	Width	Depth	Length
	Pounds	Inches	Inches	Feet
RW construction common 4"	1826	4	4	12
RW construction common 4"	2856	4	6	12
RW construction common 6"	9131	6	6	12

BEAM SPAN TABLE										
For rafter span loading of beam LL + DL per sq. ft. on roof area.										
Douglas Fir # 2 Live Load=10 lb/sq ft. Dead Load=5 lb/sq ft; TOTAL LOAD=15 lb/sq ft										
(Half of rafter load on beam)			4X8				4X10		4X12	
Rafter Span	Ft. to Beam	On Beam	Allowable Span		Allowable Span		Allowable Span			
Feet	Feet	lb/ft	Feet	Inches	Feet	Inches	Feet	Inches		
12	6	90	14	1	17	9	21	3		
13	6.5	97.5	13	6	17	10	20	6		
14	7	105	13	1	16	6	19	10		
15	7.5	112.5	12	8	15	11	19	3		
16	8	120	12	4	15	6	18	8		
17	8.5	127.5	11	11	15	0	18	1		
18	9	135	11	8	15	8	17	8		
19	9.5	142.5	11	4	14	3	17	2		
20	10	150	11	0	13	11	16	10		
21	10.5	157.5	10	10	13	8	16	5		
22	11	165	10	6	13	4	16	0		
23	11.5	172.5	10	4	13	0	15	9		
24	12	180	10	1	12	9	15	5		

Note: The values shown do not include the self weight of the beam; the weight of the beam has been considered in the calculation.

PATIO ROOF RAFTER SPAN TABLE									
Douglas Fir-Larch Roof Rafter L/240 10LL+5DL Deflection calculated on LL only									
LL=10 Lb/Sq. Ft.			DL=5 Lb/Sq. Ft.			Deflection=L/240			
Grade	Width	Height	Grade	Width	Height	Grade	Width	Height	
DF #2	2	X	DF #2	2	X	DF #2	2	X	
Spacing	Allowable Span		Spacing	Allowable Span		Spacing	Allowable Span		
Inches o.c.	Feet	Inches	Inches o.c.	Feet	Inches	Inches o.c.	Feet	Inches	
12	10	11	12	17	1	12	23	5	
16	9	6	16	14	10	16	20	3	
24	7	9	24	12	2	24	16	6	