CITY OF CHULA VISTA

DEPARTMENT OF PLANNING & BUILDING

BUILDING DIVISION

276 Fourth Avenue Chula Vista CA 91910

619-691-5272 619-585-5681 FAX

RESIDENTIAL DECK SPECIFICATIONS

FORM 4598

I. GENERAL

This handout describes the minimum requirements for obtaining residential deck permits using the City's standard plan. The City's standard plan shall not be used for decks less than 5' from a property line.

II. WHEN IS A PERMIT REQUIRED?

A building permit is required for any residential deck more than 30 inches above grade.

III. YOUR OPTIONS FOR SERVICE

Deck permits may be obtained "over-the-counter" when using the City of Chula Vista Building Division standard plan designed using conventional wood framing. Plans not meeting the criteria for over-the-counter plan check must be submitted for plan review.

IV. DRAWINGS TO PROVIDE/FORMS TO COMPLETE

Plans must be drawn to scale and must be of sufficient clarity to indicate the location, nature and extent of the work proposed. Be sure to clearly label all existing and proposed construction. Plans must show, in detail, that the proposed work will conform to the provisions of the California Building Code, City Zoning Ordinance, and all other relevant regulations. Zoning information is available at the Planning Division, Planning and Building Department.

V. PLAN SUBMITTAL REQUIREMENTS:

A. Three plot plans. (See figure #1)

B. Two copies of this handout (highlight specific design parameters); or,

C. Two copies of special residential deck design. Specify deck materials, joists spans, beams, posts, post spacings and footing details.

E. Submit three floor plans drawn to scale (1/4" = 1'-0") of adjacent rooms to the proposed deck structure. Indicate use and show dimensions of all rooms adjacent to deck. Show dimensions and sizes of all windows and doors from those rooms.

VI. PERMIT APPLICATION:

All projects must be submitted with a permit application. If you intend to obtain your permit on the same day as plan review, the application must be fully completed. Note: there are no exceptions to the Workers' Compensation Insurance requirements. If the property owner is doing the construction work or is hiring a number of different construction worker or is hiring a number of different contractors, a separate Owner-Builder Verification form must be signed by the owner at theBuilding Division counter before a permit can be issued.

VII. ADDITIONAL REGULATIONS

All electrical wiring and equipment must comply with regulations for exterior installation.

IX. CONSTRUCTION SPECIFICATIONS

The following are the minimum construction specifications for decks.

A. The concrete mix for footings must meet a compressive strength of f'c = 2,500 psi minimum or the following proportions by volume:
1 part Portland cement
$2\frac{1}{2}$ parts sand
$3\frac{1}{2}$ parts, $\frac{3}{4}$ inch maximum-size gravel
7 gallons of water maximum per sack of cement

B. Lumber must meet the following requirements:
1. Douglas fir-larch #2 or better grade.
2. Must be grade marked.
3. Joists, girders and posts may be required to be protected against decay and termites.
4. Posts must be 4" x 4" minimum nominal dimension.

C. The post anchorage and bracing details shown on the following sheets have been approved by the City of Chula Vista for decks:
1. Post must be anchored at the lower end and must be braced at the upper end using either of details shown in figures 3 to 8. Decorative-type bracing may be substituted if the same resistance to lateral loading is provided.
2. Post anchorage to footings may be made with a standard approved post base installed per manufacturer's instructions. The footing must be adequate size for the load applied. See section XI, and Table 2.

D. To connect and support one side of the structure by attaching it directly to the house, the main girder may be replaced on the side attached to the dwelling unit with a ledger the same size as the joists or larger, but at least a 2 x 6. It must be fastened to the studs with two $\frac{3}{8}$ inch diameter by 5 inch long lag bolts spaced at 16" maximum on center for up to a 16 foot joist span. Two $\frac{3}{8}$ inch diameter by 5 inch long lag bolts may be spaced at 32" maximum on center for up to a 8 foot joist span. If a ledger is not used, deck joists can be notched as permitted by the CBC and placed directly on the top plates of the wall.

E. Specify deck covering when submitting plans. Note

that the panel span rating for plywood subfloor must be appropriate for the joist spacing (i.e., the second number in the panel span rating must be equal to or greater than the deck joist spacing called out in Table 3. Adequate drainage must also be provided.

F. Minimum nailing shall be in accordance with Table 2304.9.1 of the CBC.

XI. INSPECTIONS

An inspection record card is issued at the time that the permit is issued obtained. The inspector signs the card as the construction is inspected and approved. The City of Chula Vista requires that the approved plans, inspection record Card and the permit be retained on the site until the final inspection has been approved. Three separate inspections are required for residential decks:

1) Footings, when footings have been excavated but before concrete is placed and; 2) When ledgers are attached to an existing structure, and; 3) Final, when work is complete. Call (619) 409-5434 to schedule an inspection.

XII. TABLES FOR JOIST, BEAM & FOOTING SIZES:

The attached tables assume the following conditions:

A. Live load is 40 psf
B. Dead load is less than or equal to 30 psf
C. Lumber is be #2 DFL or better.
D. Posts are to be 4" x 4" minimum.
E. Soil bearing capacity is maximum 1,000 psf.

XXIII. Figure 1/ Requirements for deck plot plan

Contact the Planning Division at (619) 691-5101 for yard setbacks and other requirements before drawing the plot plan.

Three copies of the plot plan are required for a permit. You must include information on each of the following items on the plot plan:

1. Name of owner.
2. Address and Assessor's Parcel Number where patio is to be built.
3. Legal description of property.
4. North arrow and scale. Suggested scale: 1" = 20'
5. Boundaries and dimensions of property.*
6. Names of bordering streets.*
7. Width of alley(s), if any.*
8. Location and width of easements. Private easements should be shown on the property's deed.*
9. Location and dimensions of existing buildings, structures, retaining walls, paved parking and driveways. Include distance from property line.
10. Location and dimensions of proposed deck. Include distance to property line.
11. Location and spacing of all posts supporting deck.
12. Existing survey hubs, pipes and similar permanently installed property line identification.

*This information is available from the Planning Division.

Figure 1/ Deck plot plan example

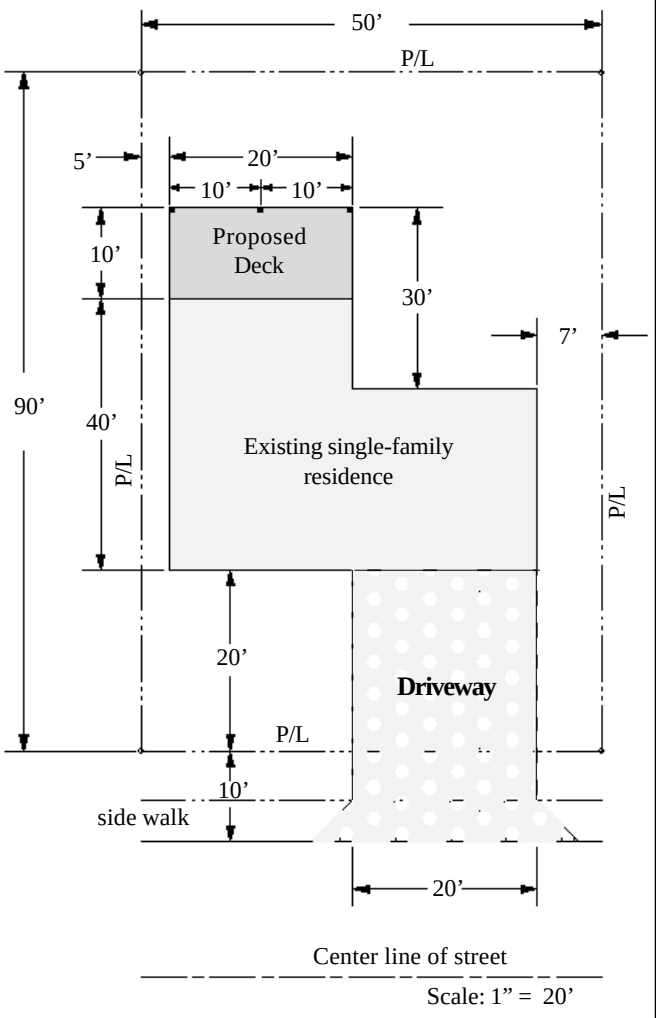
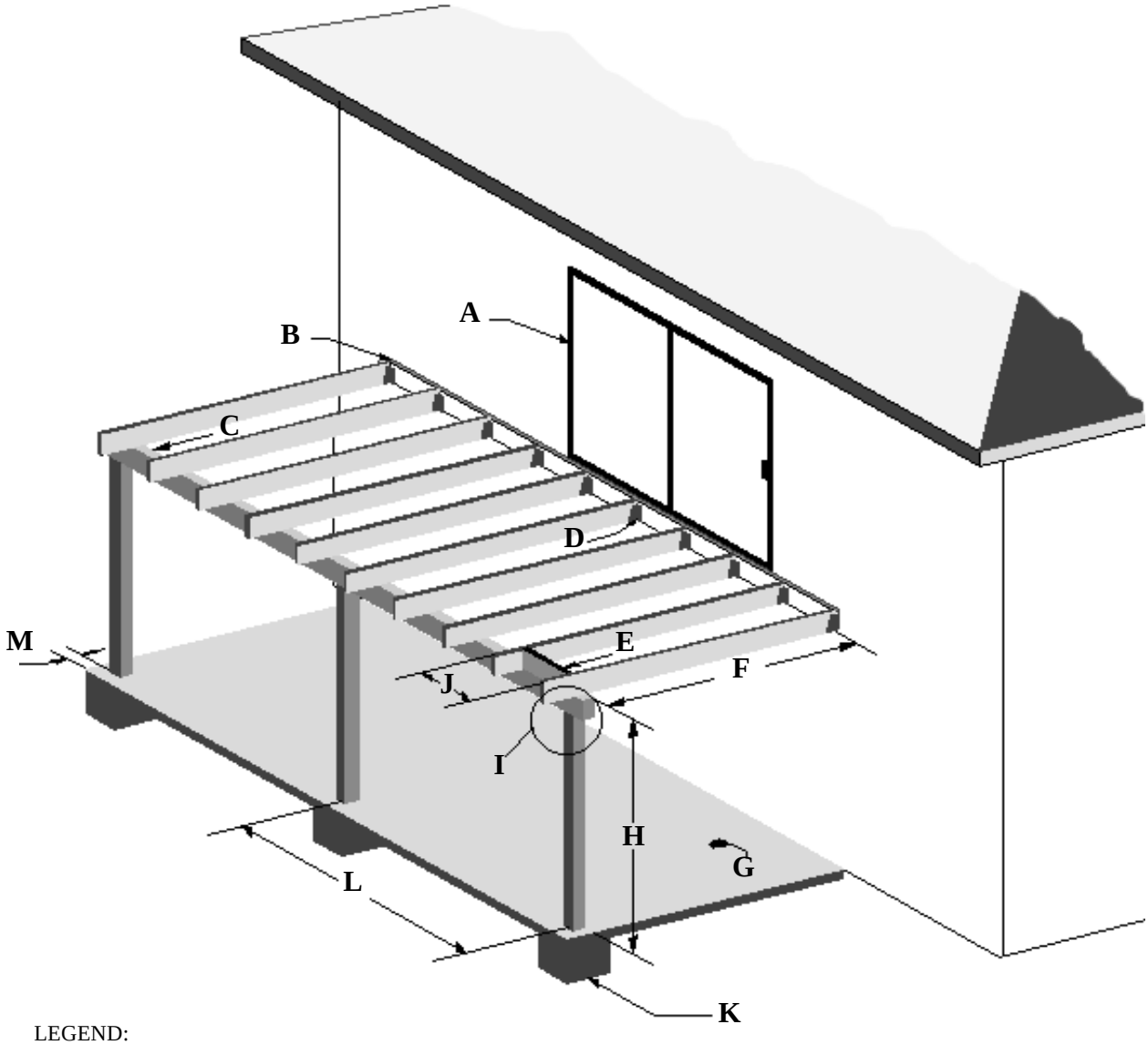


Figure 2 / Typical redential deck construction



LEGEND:

- A - Opening to deck (e.q.. Sliding Glass Door)
- B - Ledger to unit attachment (see Section IX D)
- C - Main Beam or Header
- D - Minimum of 18 ga. U-type hanger
- E - Continuous solid blocking between joists more than 6” in depth
- F - Joist Span
- G - Concrete Slab
- H - 7’-0” minimum height
- I - Beam to Post connection (see Beam to Post detail illustration)
- J - Joist spacing (center to center)
- K - Footing (see Footing detail illustration)
- L - Post spacing (center to center)
- M - 6” minimum distance from edge to post (typical)

Figure 3/Anchor and footing detail, integrated slab

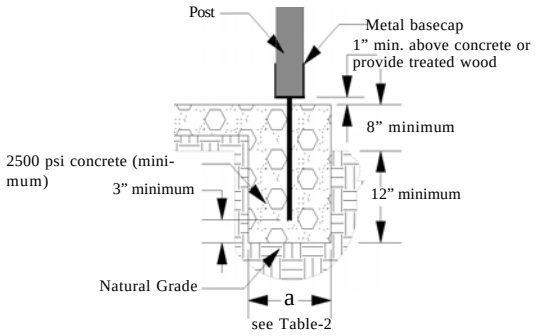


Figure 4/Anchor and footing detail, isolated pier

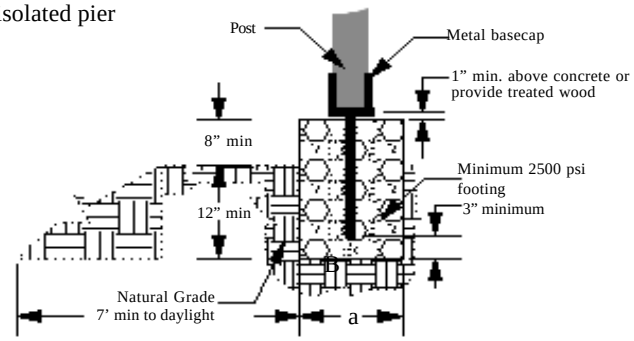


Figure 5/ Post & Beam Connection detail (end condition)

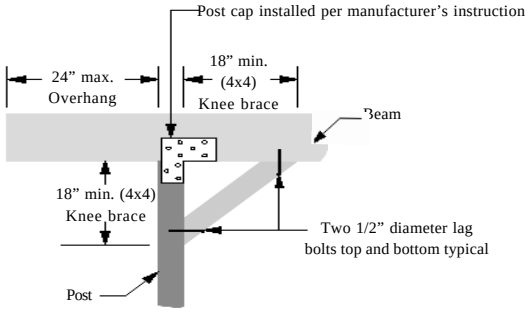
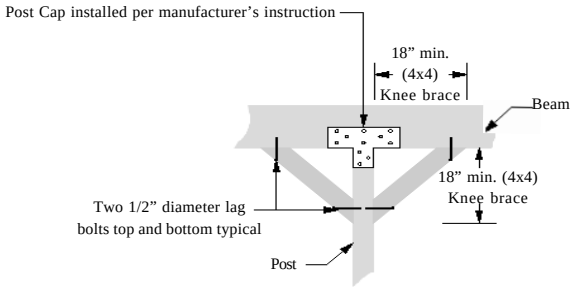


Figure 6/Post & Beam Connection detail (interior condition)



Note: Dimensions "a" typical on all sides of the footings (see Table 2).

Table-1.

Post spacing (ft)	MINIMUM BEAM SIZES [1, 2, 3] Joist Span (ft)							
	4	6	8	10	12	14	16	18
4	4 x 4	4 x 4	4 x 4	4 x 4	4 x 6	4 x 6	4 x 6	4 x 6
6	4 x 4	4 x 6	4 x 6	4 x 6	4 x 8	4 x 8	4 x 8	4 x 8
8	4 x 6	4 x 8	4 x 8	4 x 8	4 x 10	4 x 10	4 x 12	4 x 12
10	4 x 8	4 x 8	4 x 10	4 x 12	4 x 12	4 x 14	4 x 14	4 x 16
12	4 x 10	4 x 10	4 x 12	4 x 14	4 x 16	4 x 16	4 x 14	
14	4 x 12	4 x 12	4 x 14	4 x 16	6 x 14			
16	4 x 14	4 x 14	4 x 16					
18	4 x 14	4 x 16						
20	4 x 16	----						

Table-2.

Post spacing (ft)	MINIMUM "a" FOOTING SIZES (inches) Joist Span (ft)							
	4	6	8	10	12	14	16	18
4	12"	12"	14"	16"	18"	19"	19"	23"
6	12"	16"	16"	20"	22"	23"	24"	25"
8	14"	18"	20"	22"	22"	26"	28"	29"
10	16"	20"	22"	25"	28"	29"	30"	33"
12	18"	22"	24"	27"	29"	31"	33"	
14	18"	22"	26"	30"	31"			
16	20"	24"	28"					
18	22"	26"						
20	24"							

Table-3.

Joist span (ft)	MINIMUM JOIST SIZES [1, 2, 3] Rafter spacing (center to center)			
	12"	16"	24"	32"
4	2 x 4	2 x 4	2 x 4	2 x 6
5	2 x 4	2 x 4	2 x 6	2 x 6
6	2 x 4	2 x 6	2 x 6	2 x 8
7	2 x 6	2 x 6	2 x 8	2 x 10
8	2 x 6	2 x 8	2 x 8	2 x 10
9	2 x 8	2 x 8	2 x 10	2 x 12
10	2 x 8	2 x 10	2 x 12	2 x 14
11	2 x 8	2 x 10	2 x 12	----
12	2 x 10	2 x 12	----	----
13	2 x 10	2 x 12	----	----
14	2 x 12	----	----	----
15	2 x 12	----	----	----
16	----	----	----	----
17	----	----	----	----
18	----	----	----	----

[1]Live load = 40 psf; dead load = 30 psf
[2]All lumber to be Douglas Fir-Larch No. 2
[3]Total load exceeding 70 psf shall be design by a California licensed Architect, Civil or Structural Engineer.

Figure 7 / Typical residential deck elevation (facing rear of the dwelling)

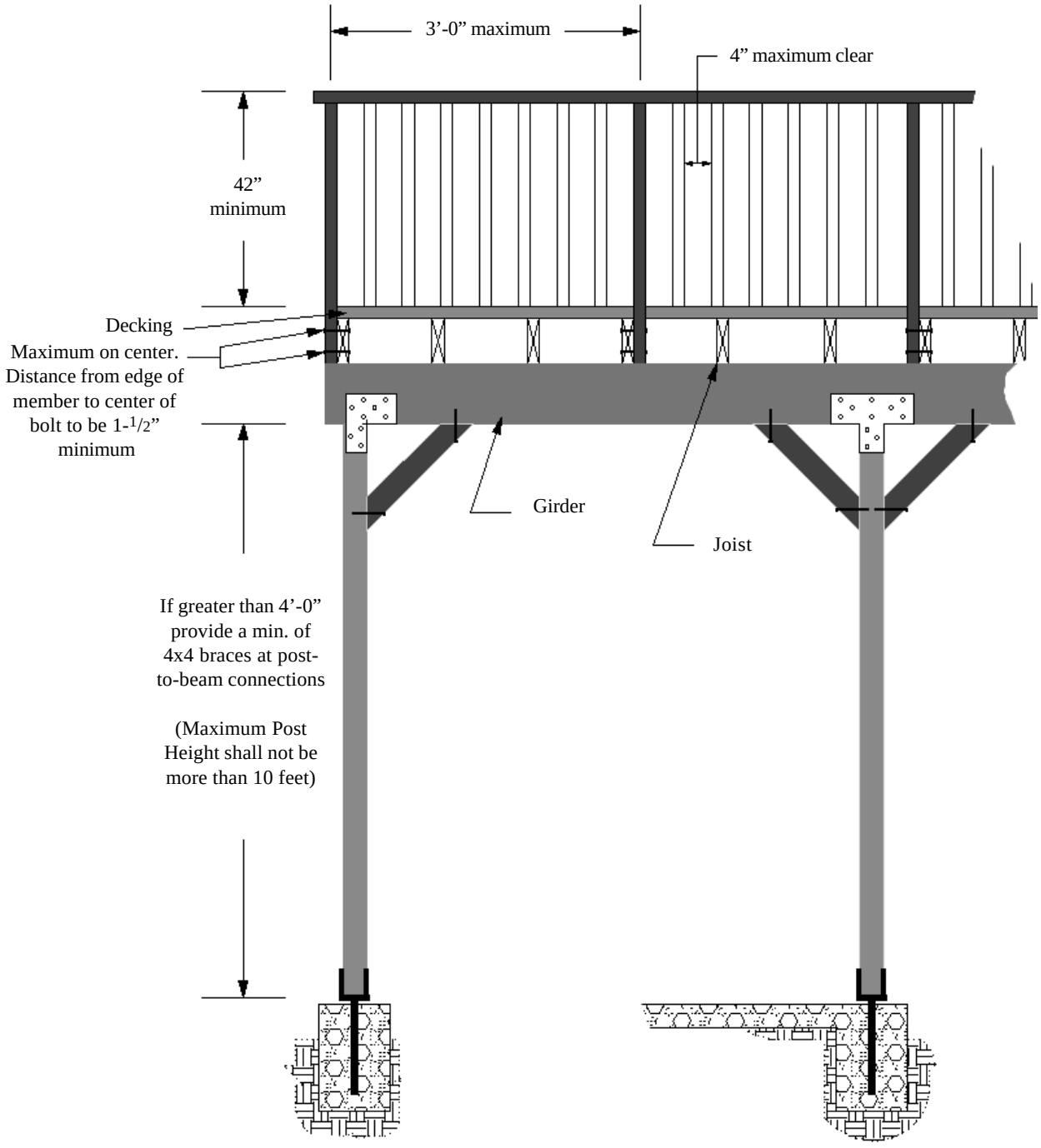


Figure 8 / Typical residential deck elevation facing side of the dwelling