



City of Loveland

# Single Family Residential



## Deck - Building Guide

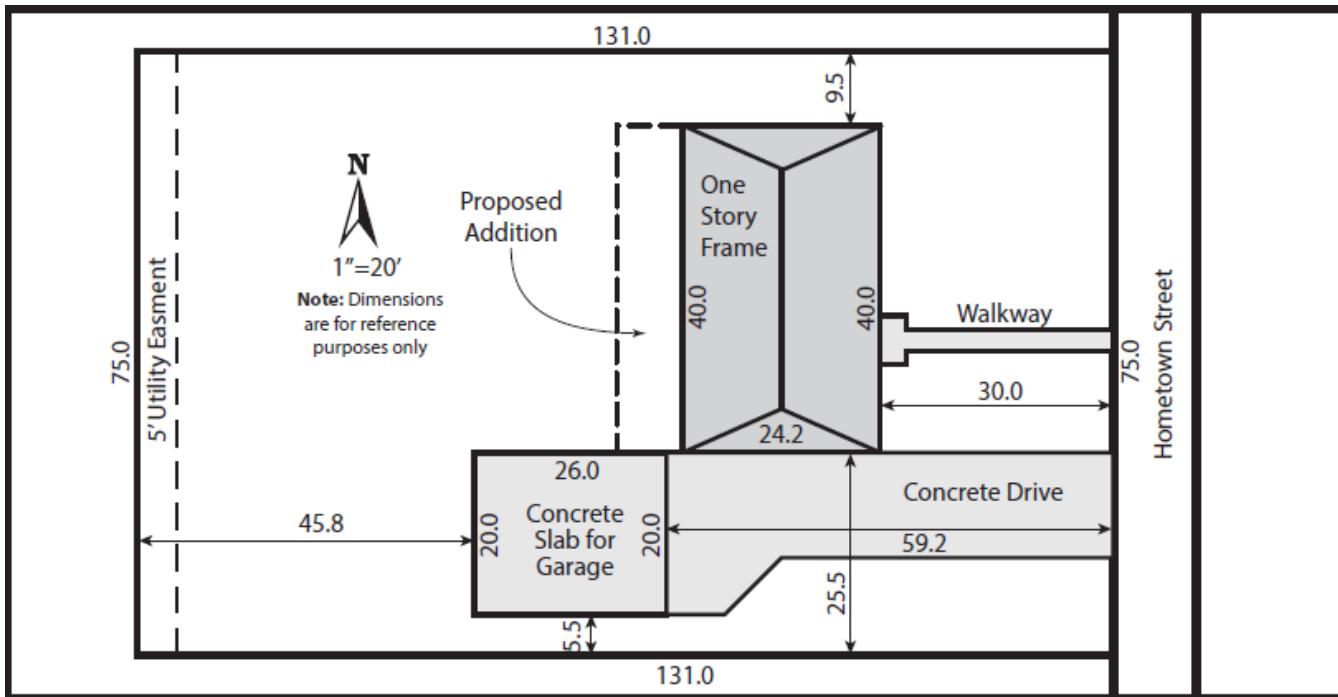
Requirements for Permit Submittal:

1. **Complete this Building Guide**
2. **Provide 1 plot plan, electronic or on 8.5 x 11in paper** (example below)
3. **Fill out Building Permit Application**
4. **Provide Plan and Elevation views of Deck with Dimensions**

The City of Loveland processes all permit submittals electronically. Submittals can be emailed in to [eplan-res@cityofloveland.org](mailto:eplan-res@cityofloveland.org). Once a full submittal is received and accepted through the check in process, the review time is 5 business days.

The documents submitted help determine if the project is compliant with the International Residential Code, City of Loveland Municipal Codes, zoning ordinances, and other applicable laws.

### Plot Plan Example:



### The plot plan must include:

1. Dimensions of the home and the detached garage.
2. Dimensions of the entire lot, showing any easements.
3. Distances from each edge of proposed structure to each lot line.

## Directions:

1. Fill in the blanks in the worksheet below and include dimensions and materials used.
2. Use the check boxes in the worksheet to specify which details (page 3) will be used.

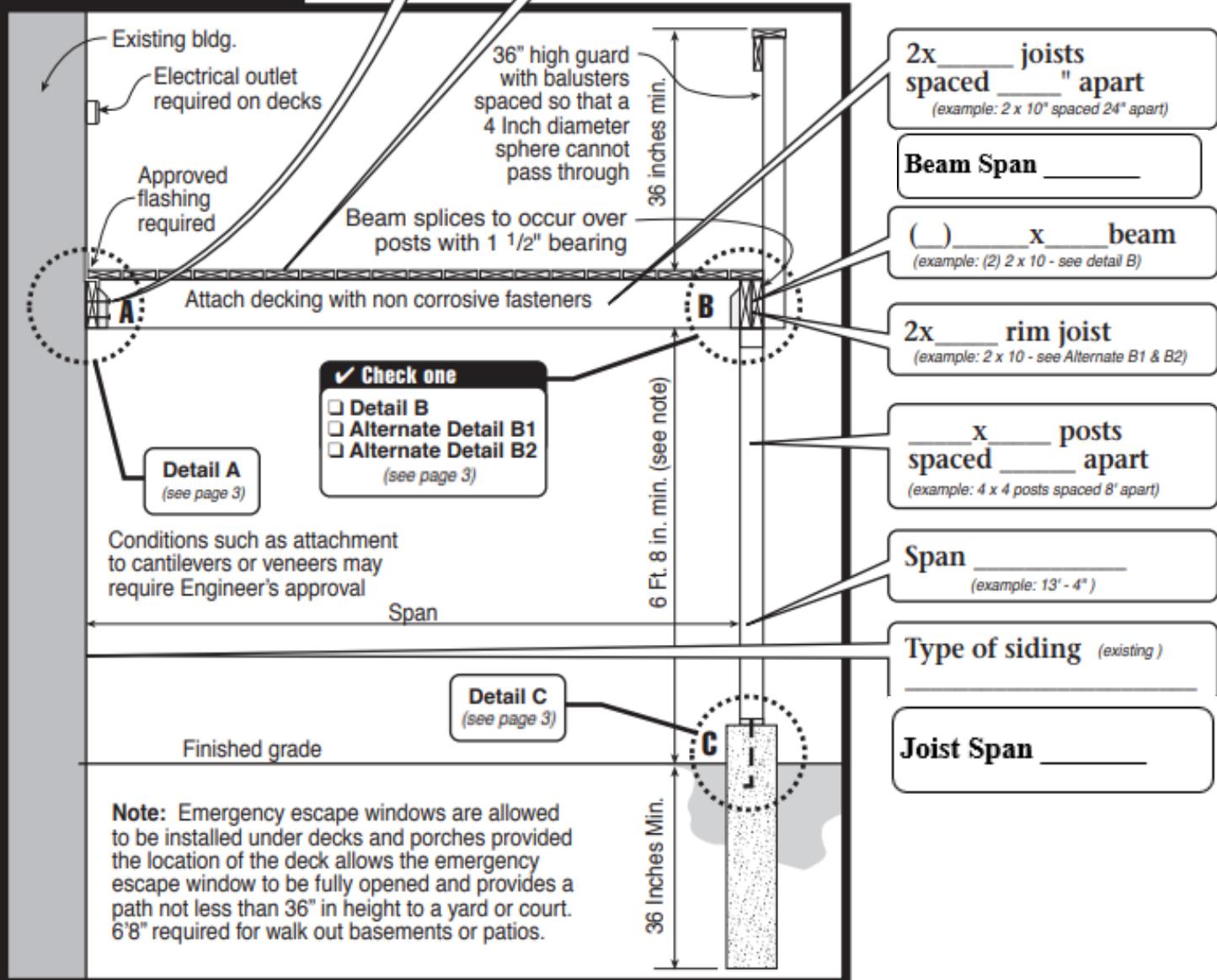
### Size and Spacing of Lags

(example: Two 1/2"x 4 1/2" lags @ 16" O.C.)

Type of decking  x

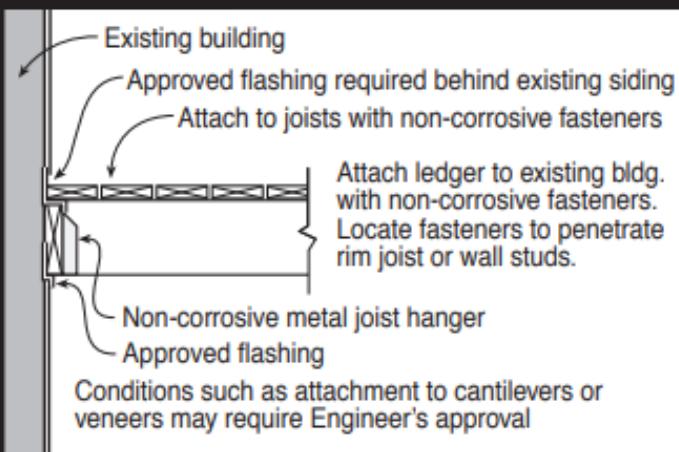
(example: 1 x 4 or 2 x 6 - Trex)

## Deck Section

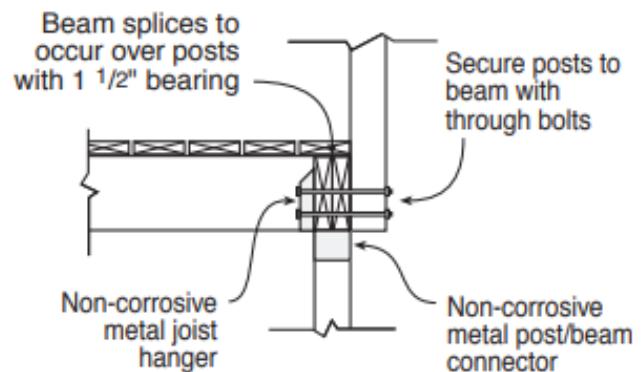


\*charts for deck beam span lengths and deck joist spans are available for reference on page 5

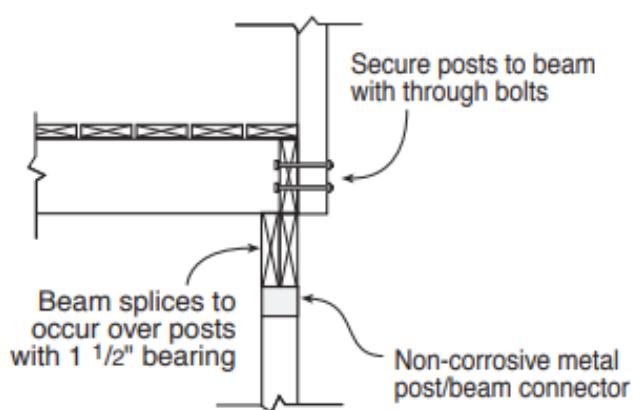
## Detail A



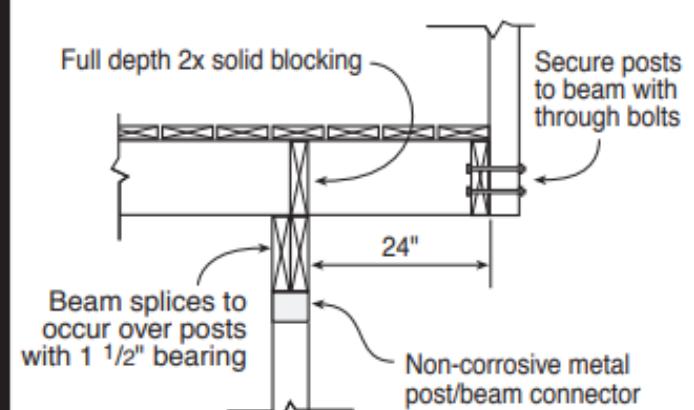
## Detail B



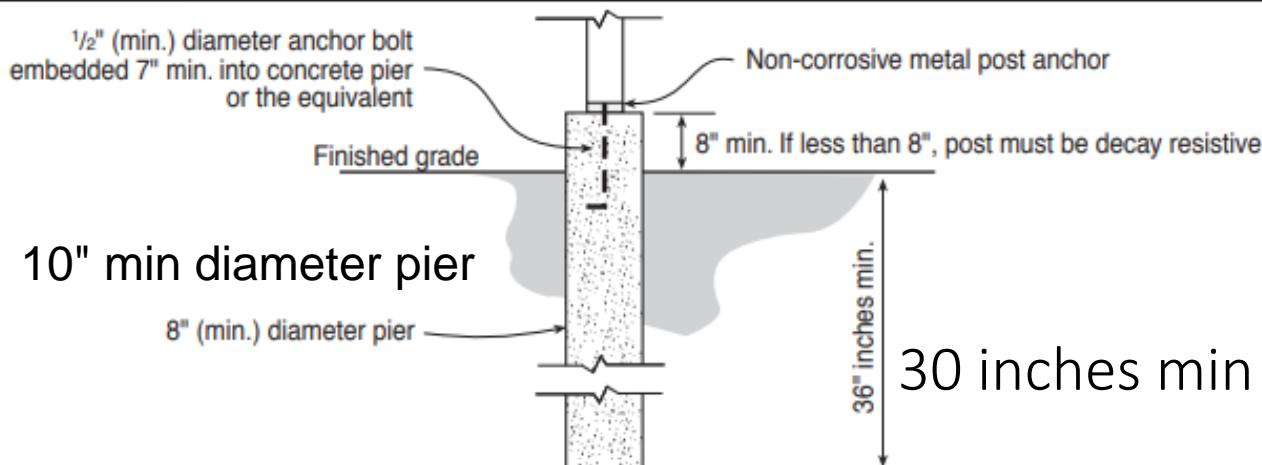
## Alternate Detail B1



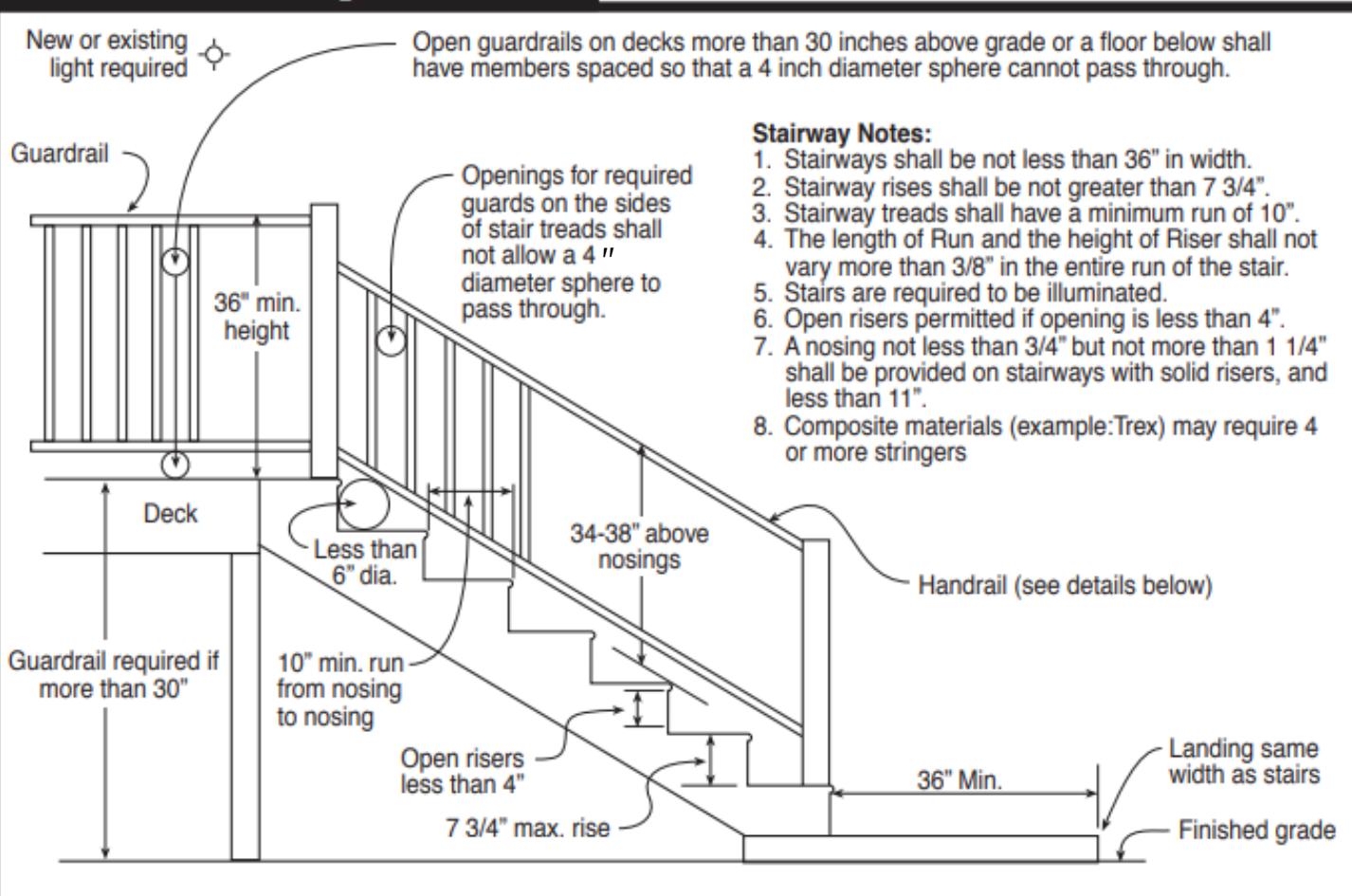
## Alternate Detail B2



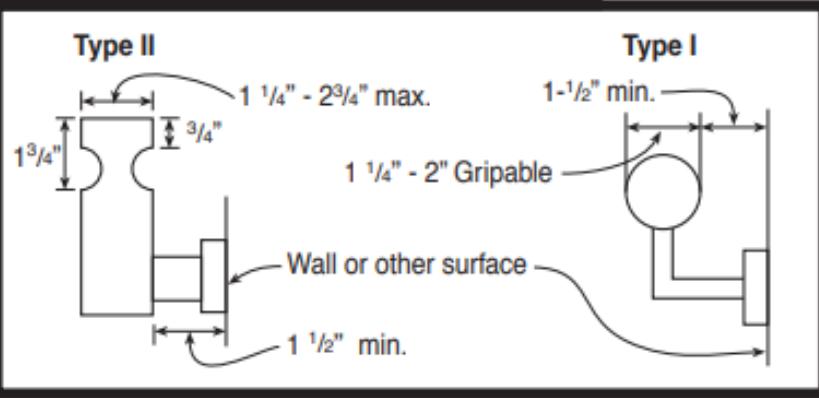
## Detail C



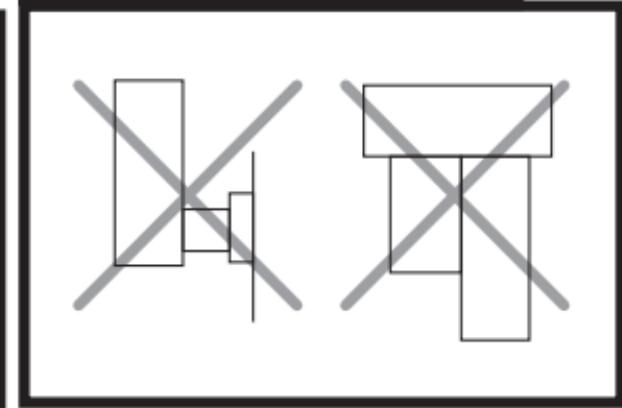
## Stair & Handrail Specifications



## Acceptable Handrail Details



## Unacceptable Handrails



**NOTE:**

1. Handrails shall be continuous on at least one side of stairs with 4 or more risers.
2. Top of the handrails shall be placed not less than 34 inches nor more than 38 inches above stair nosings.
3. The hand-grip portion of handrails shall be not less than 1-1/4 inches nor more than 2-1/4 inches in cross section for non circular handrails.
4. Handrails shall be placed not less than 1-1/2 inches from any wall or other surface
5. Handrails to be returned to wall, post, or safety terminal (per 311..8.2 IRC).

TABLE R507.6  
DECK BEAM SPAN LENGTHS<sup>a, b</sup> (ft. - in.)

SPECIES <sup>c</sup>	SIZE <sup>d</sup>	DECK JOIST SPAN LESS THAN OR EQUAL TO: (feet)						
		6	8	10	12	14	16	18
Southern pine	2 - 2 x 6	6-11	5-11	5-4	4-10	4-6	4-3	4-0
	2 - 2 x 8	8-9	7-7	6-9	6-2	5-9	5-4	5-0
	2 - 2 x 10	10-4	9-0	8-0	7-4	6-9	6-4	6-0
	2 - 2 x 12	12-2	10-7	9-5	8-7	8-0	7-6	7-0
	3 - 2 x 6	8-2	7-5	6-8	6-1	5-8	5-3	5-0
	3 - 2 x 8	10-10	9-6	8-6	7-9	7-2	6-8	6-4
	3 - 2 x 10	13-0	11-3	10-0	9-2	8-6	7-11	7-6
	3 - 2 x 12	15-3	13-3	11-10	10-9	10-0	9-4	8-10
Douglas fir-larch <sup>e</sup> , hem-fir <sup>e</sup> , spruce-pine-fir <sup>e</sup> , redwood, western cedars, ponderosa pine <sup>f</sup> , red pine <sup>f</sup>	3 x 6 or 2 - 2 x 6	5-5	4-8	4-2	3-10	3-6	3-1	2-9
	3 x 8 or 2 - 2 x 8	6-10	5-11	5-4	4-10	4-6	4-1	3-8
	3 x 10 or 2 - 2 x 10	8-4	7-3	6-6	5-11	5-6	5-1	4-8
	3 x 12 or 2 - 2 x 12	9-8	8-5	7-6	6-10	6-4	5-11	5-7
	4 x 6	6-5	5-6	4-11	4-6	4-2	3-11	3-8
	4 x 8	8-5	7-3	6-6	5-11	5-6	5-2	4-10
	4 x 10	9-11	8-7	7-8	7-0	6-6	6-1	5-8
	4 x 12	11-5	9-11	8-10	8-1	7-6	7-0	6-7
	3 - 2 x 6	7-4	6-8	6-0	5-6	5-1	4-9	4-6
	3 - 2 x 8	9-8	8-6	7-7	6-11	6-5	6-0	5-8
	3 - 2 x 10	12-0	10-5	9-4	8-6	7-10	7-4	6-11
	3 - 2 x 12	13-11	12-1	10-9	9-10	9-1	8-6	8-1

TABLE R507.5  
DECK JOIST SPANS FOR COMMON LUMBER SPECIES<sup>e</sup> (ft. - in.)

SPECIES <sup>c</sup>	SIZE	SPACING OF DECK JOISTS WITH NO CANTILEVER <sup>e</sup> (inches)			SPACING OF DECK JOISTS WITH CANTILEVERS <sup>e</sup> (inches)		
		12	16	24	12	16	24
Southern pine	2 x 6	9-11	9-0	7-7	6-8	6-8	6-8
	2 x 8	13-1	11-10	9-8	10-1	10-1	9-8
	2 x 10	16-2	14-0	11-5	14-6	14-0	11-5
	2 x 12	18-0	16-6	13-6	18-0	16-6	13-6
Douglas fir-larch <sup>d</sup> , hem-fir <sup>d</sup> spruce-pine-fir <sup>d</sup>	2 x 6	9-6	8-8	7-2	6-3	6-3	6-3
	2 x 8	12-6	11-1	9-1	9-5	9-5	9-1
	2 x 10	15-8	13-7	11-1	13-7	13-7	11-1
	2 x 12	18-0	15-9	12-10	18-0	15-9	12-10
Redwood, western cedars, ponderosa pine <sup>e</sup> , red pine <sup>e</sup>	2 x 6	8-10	8-0	7-0	5-7	5-7	5-7
	2 x 8	11-8	10-7	8-8	8-6	8-6	8-6
	2 x 10	14-11	13-0	10-7	12-3	12-3	10-7
	2 x 12	17-5	15-1	12-4	16-5	15-1	12-4

\*This handout is based on the Building Guides developed by the Colorado Chapter of the International Code Council.



City of Loveland Building  
Permit Application Residential  
Deck or Porch



Items in red are REQUIRED for permit submittal

Please submit completed application and supporting documents to [eplan-res@cityofloveland.org](mailto:eplan-res@cityofloveland.org)

Application type: \_\_\_\_\_

Address: \_\_\_\_\_

Owner Name: \_\_\_\_\_ Address: \_\_\_\_\_

Owner Phone: \_\_\_\_\_ Owner Email: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Business: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact Email: \_\_\_\_\_

Will homeowner do work? (If yes, a homeowner's affidavit is needed)

Yes

No

Owner/General Contractor Name: \_\_\_\_\_ Valuation: \_\_\_\_\_

Electrical Contractor: \_\_\_\_\_ Sub-valuation: \_\_\_\_\_

Mechanical Contractor: \_\_\_\_\_ Sub-valuation: \_\_\_\_\_

Plumbing Contractor: \_\_\_\_\_ Sub-valuation: \_\_\_\_\_

Fireplace: Yes	No	If yes, fuel type:
Fire Pits: Yes	No	If yes, fuel type:
Porch sf:		Is there a roof on porch? If yes, sf:
Deck sf:		Is there a roof on deck? If yes, sf:
Patio sf:		Is there a roof on patio? If yes, sf:

**Work Description:**

I certify this application is correct. I agree to perform the work described according to plans and Specifications submitted and approved. I agree to comply with all city ordinances, state laws and building codes. Additionally, **I UNDERSTAND THAT I AM RESPONSIBLE FOR ANY FEES OR EXPENSES INCURRED FOR**

**PLAN REVIEW, PERMITS, INSPECTIONS AND OTHER FEES ASSOCIATED WITH THIS APPLICATION. FAILURE TO PICK UP AND PAY FOR THIS PERMIT WITHIN 90 DAYS OF APPROVAL WILL RESULT IN THE APPLICATION BEING CLOSED AND THE PLAN CHECK FEES BEING ASSESSED. ALL FEES UNDER THIS APPLICATION THEN BECOME NULL AND VOID.** This application does not authorize any work within the right-of-way or curb cuts; contact Public Works at 970-962-2516.

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Signature

Date