

## Building Safety Codes

Email: [safety.codes@cochrane.ca](mailto:safety.codes@cochrane.ca)



# Homeowner Deck Application

Estimated Construction Value\*

**The Alberta Safety Codes Act requires that a permit be obtained prior to beginning construction. Failure to obtain permits may result in the applicant being charged a double fee.**

## TOWN OF COCHRANE

### Building Safety Codes

101 RancheHouse Rd.

Cochrane, AB T4C 2K8

Phone: 403-851-2572 Fax: 403-932-2935

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## Fire Safety Plan

THIS PLAN MUST BE POSTED ONSITE AND OCCUPANTS/EMPLOYEES ARE EXPECTED TO  
BE TRAINED IN HOW TO FOLLOW ITS PROVISIONS

Address:

Description of Project: **Deck**

Contact Personnel:

Phone #:

### Specific Considerations:

- Fire extinguisher(s) will be available at all times during the progress of the construction
- Access to fire hydrants and buildings for fire apparatus must be maintained

**Emergency Response Numbers: FIRE/POLICE/AMBULANCE: 9-1-1**

### General Considerations:

- A WARNING SYSTEM will be in place to warn of potential threats, and facilitate evacuation (yelling, ringing of a bell or horn, etc.)
- EVACUATE via the nearest exit if you are warned of a fire
- PROCEED to the main entrance (outside) and report to the Fire Department
- FIGHT the fire ONLY if it is small and you are NOT ALONE

### Hazards Control:

- At the end of each day combustible refuse will be cleared from the site area and disposed of in bins or stored in neat piles. Unused construction material will be kept neat and orderly.
- No open-flame devices will be used inside buildings unless a dedicated watch is in place
- Liquid Propane Tanks or flammable liquids containers are not allowed within buildings

This Fire Safety Plan is designed in conformance with and is a requirement of Division B, Section 2.8.2 of the National Fire Code, and on signature, becomes an agreement between the building owner/contractor and the Town of Cochrane Fire department.

I have read and understand the above

Building Owner/Contractor Name:

Date:

## Deck Design Form

### Site Plan:

Deck size:           ft X           ft =           ft<sup>2</sup>

Deck height:       ft

Distance to Property Lines:

Rear:                   ft

Left side:           ft

Right side:          ft

Front (if applicable):       ft

Stairs:       Yes or   No

### Construction Details:

Joist size:(select one)

2X4       or

2X6       or

2X8       or

2X10     or

2X12

Joist spacing:(select one)

8" on centre       or

12" on centre     or

16" on centre     or

24" on centre

Beam Size:(select one)

2X6       or

2X8       or

2X10     or

2X12

Post spacing:                   ft

Foundation type:(select one)

\*Pile:

Screw Pile (engineering):

Stair (when applicable):

Min step run: 255mm (10.2")

Max step rise: 200mm (8")

Min stair width: 860mm (34.4")

Joist Overhang:

Max 18" for 2X6/2X8 Joists

Max 24" for 2X10/2X12 Joists

**MAX SPANS (Deck Beams)** Supported Length (ft) - means half the sum of the joist spans on both sides of the beam.

SPF No.1/No.2 (SPF)

Supported Length (ft)

**2X6**

2Ply

8'

3Ply

9'2"

4Ply

10'1"

5Ply

10'10"

**2X8**

2Ply

10'3"

3Ply

12'1"

4Ply

13'3"

5Ply

12'6"

6'10"

8'

8'10"

9'6"

8'4"

10'3"

11'7"

12'6"

5'11"

7'3"

8'

8'7"

7'2"

8'10"

10'2"

11'3"

5'3"

6'6"

7'5"

8'0"

6'5"

7'10"

9'1"

10'2"

4'10"

5'11"

6'10"

7'6"

5'10"

7'2"

8'4"

9'3"

4'5"

5'5"

6'4"

7'1"

5'5"

6'8"

7'8"

8'7"

4'2"

5'1"

5'11"

6'7"

5'1"

6'3"

7'2"

8'0"

3'11"

4'10"

5'7"

6'3"

4'9"

5'10"

6'9"

7'7"

**2X10**

2Ply

12'6"

3Ply

15'4"

4Ply

16'11"

5Ply

18'1"

**2X12**

2Ply

14'6"

3Ply

17'9"

4Ply

19'10"

5Ply

21'0"

10'2"

12'6"

14'5"

15'11"

11'10"

14'6"

16'9"

18'8"

8'9"

10'9"

12'5"

13'11"

10'2"

12'6"

14'5"

16'2"

7'10"

9'8"

11'2"

12'5"

9'1"

11'2"

12'11"

14'5"

7'2"

8'9"

10'2"

11'4"

8'4"

10'2"

11'9"

13'2"

6'8"

8'2"

9'5"

10'6"

7'8"

9'5"

10'11"

12'2"

6'2"

7'7"

8'9"

9'10"

7'2"

8'10"

10'2"

11'5"

5'10"

7'2"

8'3"

9'3"

6'9"

8'4"

9'7"

10'9"

**MAX SPANS (Deck Joists)**

SPF No.1/No.2 (SPF)

**2X4**

8" O/C

7'3"

12" O/C

6'4"

16" O/C

5'9"

24" O/C

5'0"

**2X6**

8" O/C

11'5"

12" O/C

10'0"

16" O/C

9'1"

24" O/C

7'11"

**2X8**

8" O/C

15'1"

12" O/C

13'2"

16" O/C

11'11"

24" O/C

10'1"

**2X10**

8" O/C

19'3"

12" O/C

16'10"

16" O/C

15'2"

24" O/C

12'4"

**2X12**

8" O/C

23'5"

12" O/C

20'3"

16" O/C

17'7"

24" O/C

14'4"

ALL DETAILS FROM SPAN BOOK 2020

**\*Foundation Notes:** Concrete piles (min 9" in diameter) are to be installed not less than the depth of frost penetration. (Min 4')

All specs/details are references from the National Building Code (2023) AB Edition/Span Book 2020 (A-9.23.4.2.)

## **Requirements for Residential Decks**

### **General Information Building Permit Requirements**

#### Submission Requirements:

1. Building Permit Application form
2. Fire Safety Plan
3. Deck Design Form

#### Requirements:

##### Required Guardrail:

On each side of the stair tread or deck floor not protected by a wall that is equal to or greater than 0.6m (2') above the adjacent ground level or the adjacent surface within 1.2m (4') of the deck floor has a slope more than 1:12.

##### Guardrail Height:

Deck height over 0.6m (2') to 1.8m (5.9') requires 0.9m (3') high guardrails.

Deck height over 1.8m (5.9') required 1.07m (3.5') high guardrails.

##### Design of Guard:

Openings in guards shall not exceed 100mm (4").

The triangular openings formed by stair risers, stair treads and the bottom element of a required guard shall be of a size that prevents the passage of a 150mm (6") diameter sphere.

##### Required Handrails:

Stairs with 3 risers or more require a handrail on at least one side.

##### Handrail Height:

Handrails on stairs shall not be less than 865mm (34.6") and not more than 965mm (38.6") high.

##### Design of Handrails:

A handrail shall have a clearance of not less than 50mm(2") from any surface behind it. Handrails shall be constructed to be continually graspable along the entire length of the stair flight.

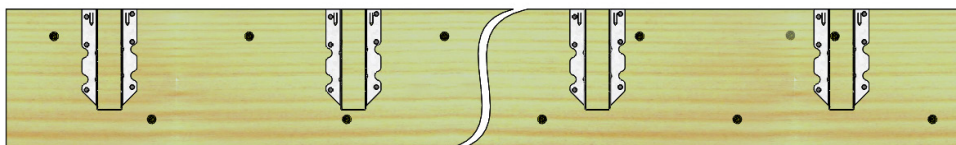
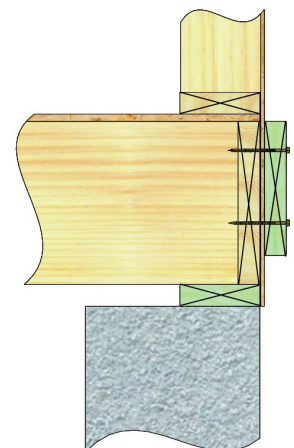
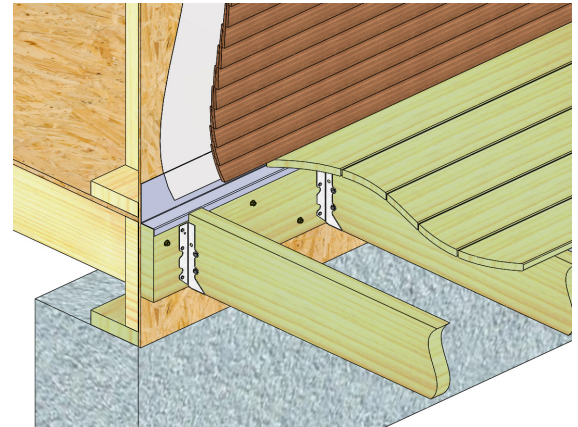
For all stair, ramp, handrail and guardrail requirements, please refer to section 9.8 of the National Building Code (2023) AB Edition

## Recommended Deck Ledger Attachment

Structural wood screws can be used to fasten deck ledgers to the rim board (AKA band / rim joist) of structures in residential constructions. The most common lengths for the deck ledger application are 3.5" and 5" long, respectively. Order screws with the "Exterior" suffix to ensure you are receiving screws with the Exterior Coat Finish.

### Installation:

- Select the proper screw length. The threads should have full engagement with the rim board and the tip of the screw should be protruding and visible beyond the inside face of the rim board member.
- With appropriate screw length selected, drive the screw through the ledger, sheathing, and rim board joist with a high torque variable speed drill.
- Drive screw so head is firm and flush with surface of deck ledger, but do not overdrive.
- Repeat these steps and install the appropriate number of screws at the prescribed edge, end distances, and spacing as called out in Table 1 and Figure 1.



Live Load	Ledger	Rim Board	Spacing between Screws based on Joist Span (in)						
			≤ 6-ft	≤ 8-ft	≤ 10-ft	≤ 12-ft	≤ 14-ft	≤ 16-ft	≤ 18-ft
40 psf/ 1.9 kPa	2x Solid Sawn	2x Solid Sawn	21	16	12	10	9	8	7
		1" Min EWP	23	17	14	11	10	8	7

1. For insulated rim boards, consult the rim board manufacturers for acceptable mounting details.
2. For ponywall connections, screws to penetrate directly into ponywall studs.