



# Building Guide

Colorado Chapter of the International Code Council

## Single Family Residential Addition

### How to Use this Guide

Provide two sets of plans and complete the following:

- 1. Complete this Building Guide** by filling in the blanks on page two and indicating which construction details will be used, and the R value of insulation used.
- 2. Provide 2 Plot Plans** showing dimensions of your project or addition and its relationship to existing buildings or structures on the property. Show all easements and the distance to existing property lines drawn to scale.
- 3. Provide 2 Floorplans.**  
Drawn to scale. See example on page 4.
- 4. Fill out a Building Permit Application.**

The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.

Smoke alarms are required to be hardwired and interconnected in new and existing bedrooms, halls and on each level unless removal of interior wall or ceiling finishes would be required. In this case, battery operated devices are acceptable.

The Colorado Chapter of the International Code Council is a professional organization seeking to promote the public health, safety and welfare to building construction. We appreciate your feedback and suggestions. To obtain a master copy of this building guide, please write to the Colorado Chapter of the International Code Council, P.O. Box 961, Arvada, CO 80001. <http://www.coloradochaptericc.org>

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2x \_\_\_ rafters spaced \_\_\_ " O.C. or  
 Manufactured Trusses spaced \_\_\_ " O.C.  
*(example: 2 x 12 Rafters Spaced 24" O.C.)*

Sheathing \_\_\_\_\_  
*(example: 1/2" exterior plywood)*

Minimum 1x \_\_\_ ridge board  
*(example: 1 x 12)*

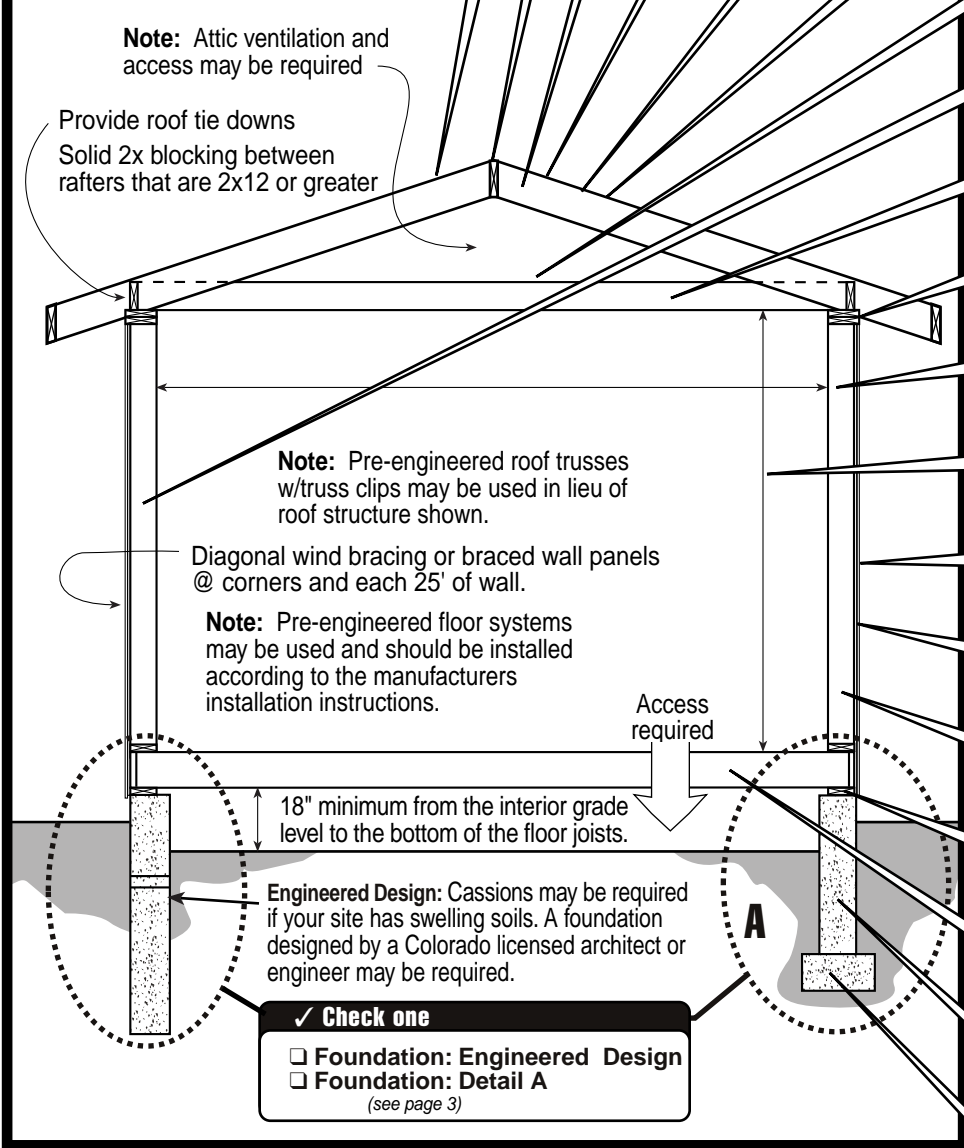
Roof covering \_\_\_\_\_  
*(example: Class A 3 tab shingles)*

**Note:** For roofs with slopes less than 4:12, follow manufacturer's instructions for low slope application of roofing material.

12 pitch \_\_\_\_\_

Underlayment \_\_\_\_\_  
*(example: 1 layer 15# felt)*

## Building Section



Ceiling Insulation \_\_\_\_\_  
*(example: R-38)*

Wall Insulation \_\_\_\_\_  
*(example: R-19 Fiberglass Batts)*

2x \_\_\_ ceiling joists @ \_\_\_ O.C.  
*(example: 2 x 8 @ 24" O.C.)*

Double 2x \_\_\_ top plate  
*(example: 2 x 6)*

Span \_\_\_\_\_  
*(example: 23' 5")*

Ceiling height \_\_\_\_\_  
*(example: 8')*

Siding \_\_\_\_\_  
*(example: lap or T-111)*

Wall sheathing \_\_\_\_\_  
*(example: 1/2" exterior plywood)*

2x \_\_\_ studs @ \_\_\_ O.C.  
*(example: 2 x 6 @ 24" O.C.)*

Cont. 2x \_\_\_ sill plate  
*(example: 2 x 4)*

2x \_\_\_ Joists @ \_\_\_ O.C.  
*(example: 2x10 @24" O.C.)*

Wall width \_\_\_\_\_ "  
*(example: 8" )*

Footing size \_\_\_\_\_ " x \_\_\_\_\_ "  
*(example: 8" X 16" )*

**Note:** Attic ventilation and access may be required

Provide roof tie downs  
 Solid 2x blocking between rafters that are 2x12 or greater

**Note:** Pre-engineered roof trusses w/truss clips may be used in lieu of roof structure shown.

Diagonal wind bracing or braced wall panels @ corners and each 25' of wall.

**Note:** Pre-engineered floor systems may be used and should be installed according to the manufacturers installation instructions.

18" minimum from the interior grade level to the bottom of the floor joists.

**Engineered Design:** Cassions may be required if your site has swelling soils. A foundation designed by a Colorado licensed architect or engineer may be required.

**Check one**

**Foundation: Engineered Design**

**Foundation: Detail A**  
*(see page 3)*

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

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## Heads Up

### Site Plan

**1. When drawing your plot plan** be sure to show the location of electric, gas, sewer and water service lines. If you don't know where they are, call the Public Service Utility Notification Center of Colorado, 1-800-922-1987. They will come out and locate lines for you. Remember to ask them about the cost.

**2. Show where the existing** electric and gas meters are located on your home. These meters may have to be relocated and it is best to know this before you start construction.

### Floor Plan

**1. Smoke alarms.** Smoke alarms are required to be hardwired and interconnected in new and existing bedrooms, halls and one on each level unless removal of interior wall or ceiling finishes would be required. In this case, battery operated devices are acceptable.

**2. Additions not to enclose** bedroom or basement egress windows.

**3. Safety glass is required** at specific locations. When you draw in the location of the new windows on the floor plan, the plan reviewer can identify which ones require safety glass.

**4. Heat is required** in all habitable rooms. Show how the addition will be heated on the plan.

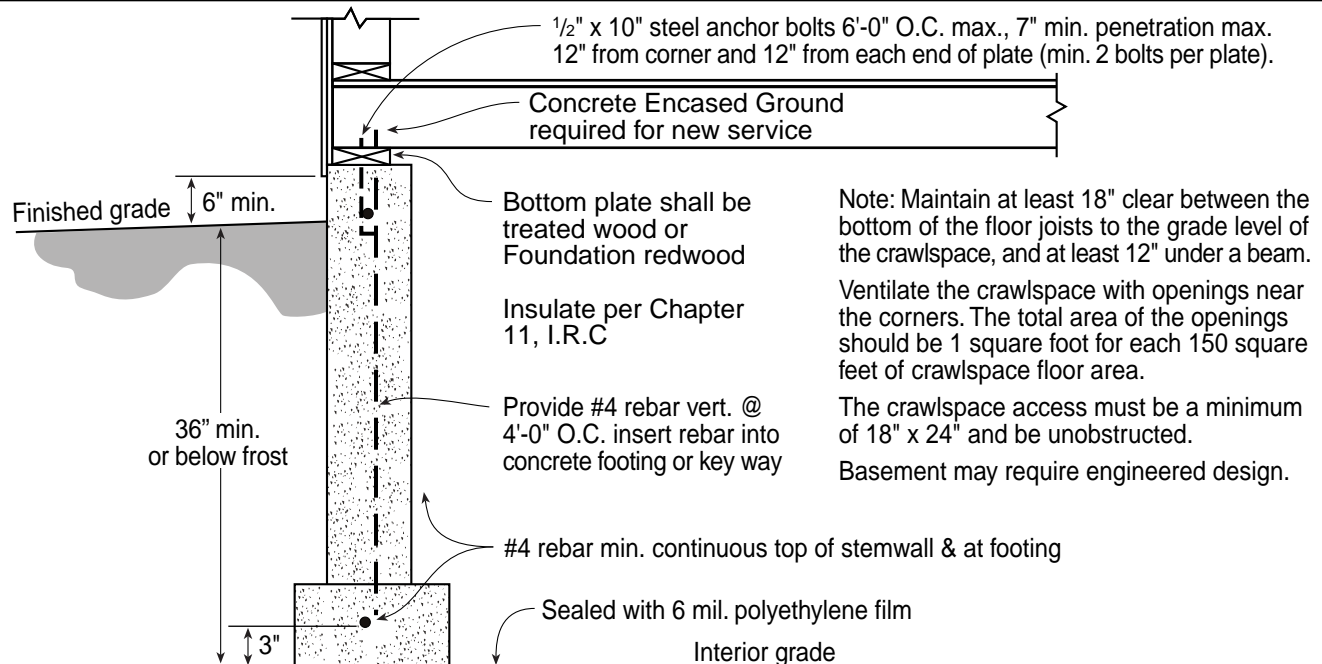
### Electric Code

**Existing electric service** may require an upgrade or relocation. Indicate the size of your electric service (the number on the main breaker) on your plan. This can help the plan reviewer determine if an upgrade is needed before you start construction.

### Roof Overframe

**When constructing a new valley,** use a continuous board under the bottom cut of the new rafters to provide a solid nailing surface. The board should be at least 2" thick, nominal and should be at least as wide as the base of the new rafter.

## Crawlspace Foundation Detail A



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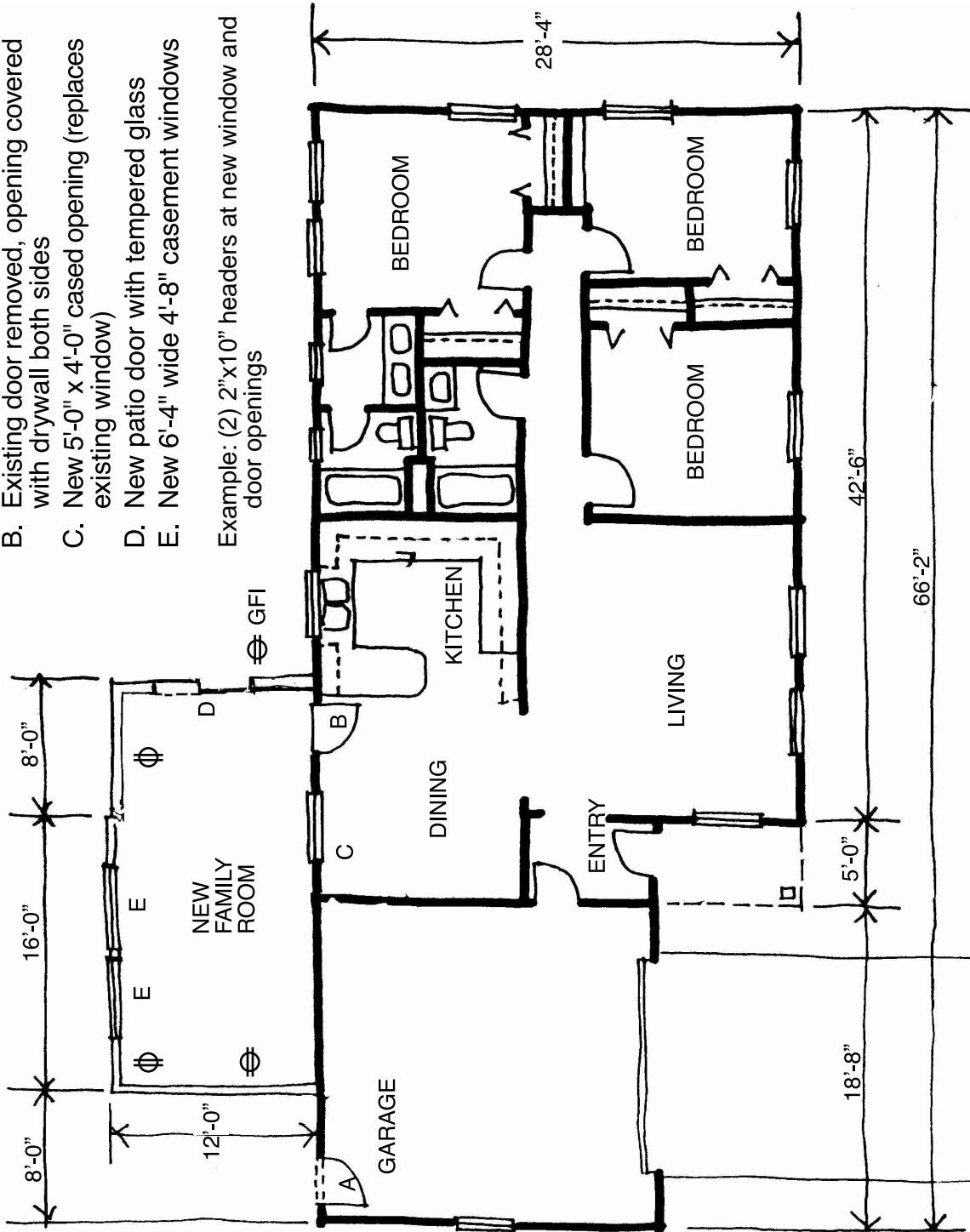
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## Sample Floor Plan

**NOTES:**

- A. New 3'-0" x 6'-8" door in existing wall
- B. Existing door removed, opening covered with drywall both sides
- C. New 5'-0" x 4'-0" casement opening (replaces existing window)
- D. New patio door with tempered glass
- E. New 6'-4" wide 4'-8" casement windows

Example: (2) 2"x10" headers at new window and door openings



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