



# Building Guide

Colorado Chapter of the International Code Council

## Single Family Residential Ramps

### How to Use this Guide

Check with your jurisdiction regarding type of submittal (paper or electronic) and for any additional requirements. Draw to scale and complete the following (hint: use graph paper with  $\frac{1}{4}$ " squares. Example:  $\frac{1}{4}$ " = 1").

- 1. Complete this Building Guide** by filling in the blanks on page two through four and indicate which construction details will be used.
- 2. Provide 2 Plot Plans (site plans)** showing the dimensions of your project and its relationship to existing buildings and/or structures on the property. The distances to the existing property lines shall be drawn to scale. See page 3.
- 3. Fill out Building Permit Application**

The majority of permit applications are process 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.

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. Please write to Colorado Chapter of the International Code Council, at P.O. Box 961, Arvada, CO 80001. This Building guide can be found on the Colorado Chapter of the International Code Council website at:  
<http://www.coloradochaptericc.org>



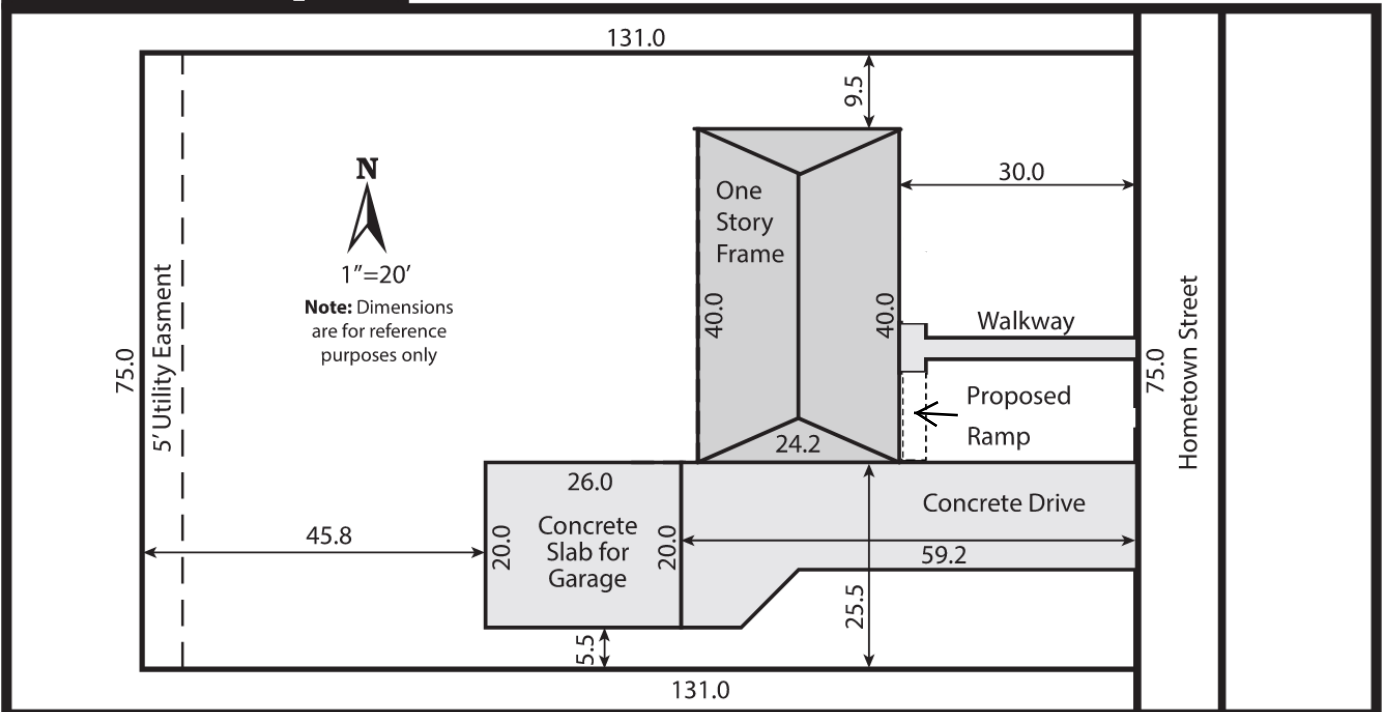
This handout was developed by the Colorado Chapter of The International Code council as a basic plan submittal under the 2021 International Residential Code. It is not intended to cover all circumstances. Check with your Building Safety department for additional requirements.

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

**Note:** A plot plan (plan view) showing the dimensions of the proposed ramp and its relationships to existing buildings/ structures as well as the dimensions to the relevant property lines must be included. In addition to project dimensions, your plot plan must also show other details such as post locations and spacing, joist and beam spans and any other pertinent information not shown on the section drawing(s).

## Site Plan Example



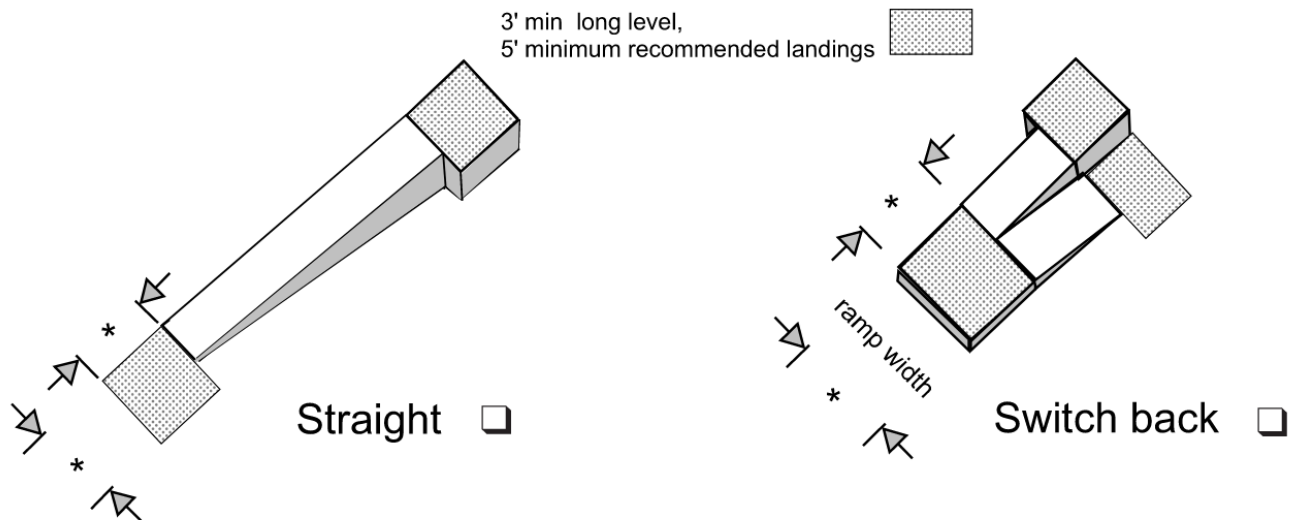
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## Directions/ Recommendations

- Submit two complete paper sets (or one electronically) of required information.
- Provide a floor plan with dimensions drawn to scale, showing the layout of the ramps.
- Ramps serving the required egress door shall have a slope not exceeding 1:12. See Section R311.8.1 for ramp allowances at other doors.
- A landing is required at the top and bottom of each ramp section.
- A 36" door is likely required to meet the minimum clear width of 32" for required Egress doors.
- Minimum 36" wide ramp recommended.
- At least one handrail is required where the ramp slope is greater than 1:12.
- Edge protection is recommended to prevent the wheels of a wheelchair from leaving the ramp surface or becoming lodged between the edge of the ramp and any adjacent construction.
- Tempered glazing for windows adjacent to the ramp may be required and shall comply with section R308.
- Plan on creating a slip resistant surface eg. some paints and decking products are slip persistent in all-weather circumstances.
- Prefabricated steel ramps are required to be installed per manufacturer's installation instructions including tie downs.
- Re-grading, creating a berm, or utilization of a lift may be helpful for tight spaces and/or greater elevation changes.

## Ramps Configuration



\*  
• IRC section 311.8.2 requires a 3' minimum ramp landing. At a landing a person on wheel chair or scooter needs at least 60" to turn and adjust for the next rampo run, to move through a doorway at the top of landing or change direction at the bottom or to enter and leave the ramp.

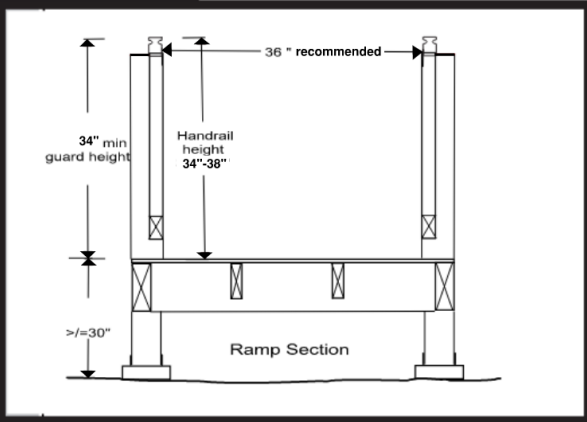
• Thus a 3' minimum ramp is recommended and a 5' minimum landing is recommended

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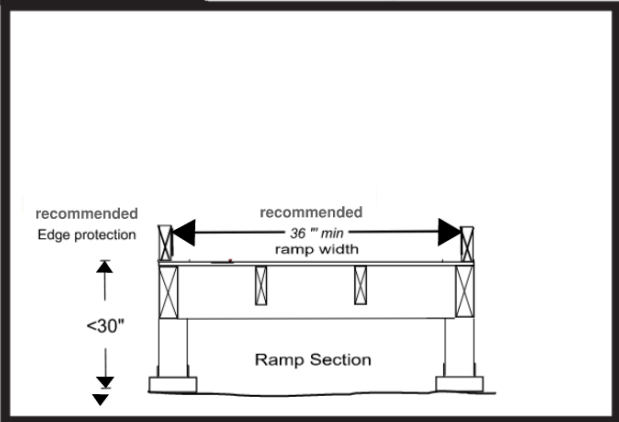
**Detail A**

Ramp section or landing exceeding 30 inches above ground

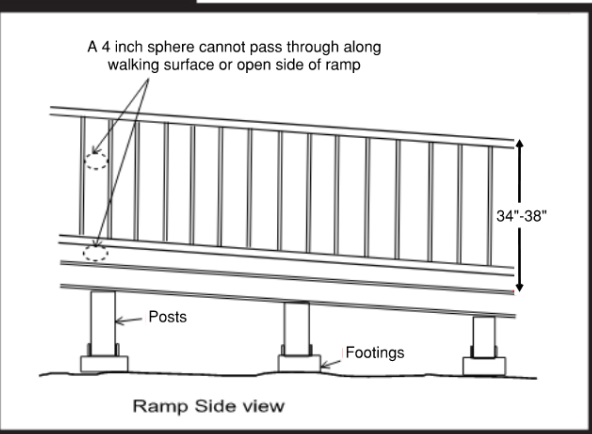


**Detail A1**

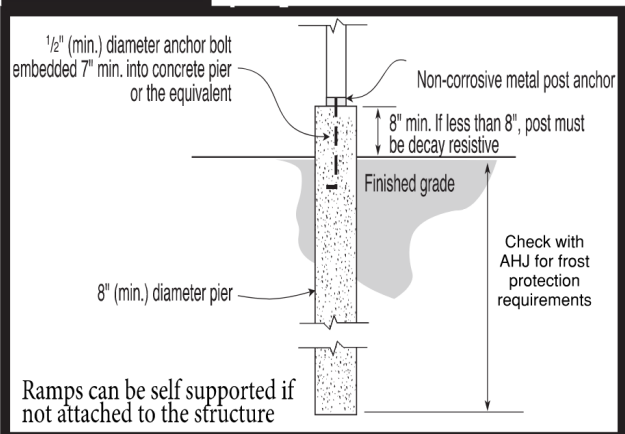
Ramp section or landing less than 30 inches above ground



**Detail B**



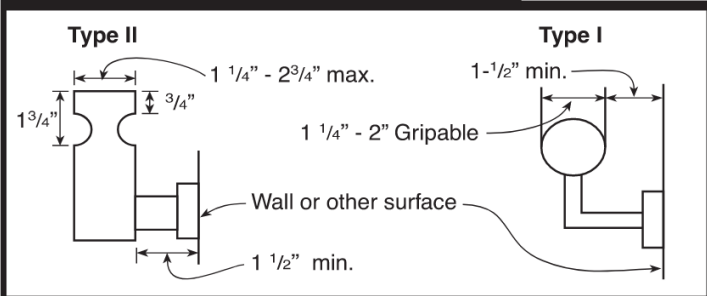
**Detail C**



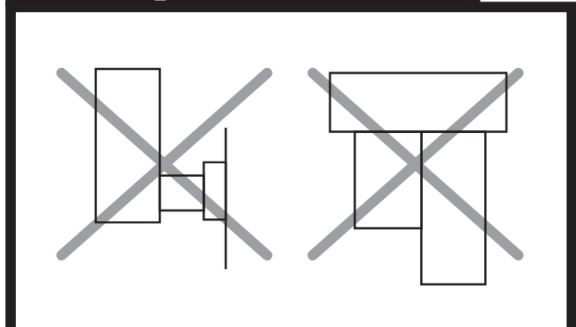
**Handrail Notes:**

1. Where provided handrails shall be continuous the full length of the ramp
2. Top of the handrails shall be placed not less than 34 inches nor more than 38 inches above ramp walking surface. Top rail of guard can also serve as handrail with a height of 34-38 inches. Height of the handrail must be constant from beginning to end.
3. The handgrip 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 R311.7.8.2).

**Acceptable Handrail Details**



**Unacceptable Handrails**



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