



## DETACHED ACCESSORY DWELLING UNIT (ADU)

This guide aims to support you through the permit process for your project, serving as a fundamental plan submittal under the 2021 International Residential Code. Please note that it may not encompass all circumstances. Depending on the scope and complexity of your project, additional and/or more detailed plans may be necessary.

This permitting process is not intended to take the place of any Homeowner Association (HOA) or Civic Association (CA) requirements; therefore, you need to check with your HOA or CA for any additional requirements they may have.

The ADU Detached Guide should be used when an ADU will be constructed that is entirely detached or separated from the principal structure.

The Internal Conversion ADU guide is intended for use when converting space in an existing home for an ADU when no structural additions are required.

The ADU Addition Guide should be used when additional space for use as an ADU will be built adjoining the principal structure.

### HOW TO USE THIS GUIDE

#### 1. PRIOR TO APPLYING FOR A PERMIT

Check with any HOA/CA and utilities (including water, sewer, gas/electric, and communications/internet) for ADU requirements/restrictions.

#### 2. APPLY FOR A PRE-SUBMITTAL MEETING

A pre-submittal meeting pursuant to Section 12-14-303 is required prior to submittal of a building permit application for an ADU. Visit the [Centennial Permit Portal](#). Create a new account or log in to an existing account. Apply for a **Pre-Submittal Plan**. It will be helpful to bring a map or sketch of your lot, including the location and dimensions of your principal home and proposed ADU.

Pre-submittal permit number \_\_\_\_\_

#### 3. SUBMIT A COMPLETED ADDRESS PERMIT APPLICATION

All ADUs are required to maintain a separate address from the principal dwelling. Visit the [Centennial Permit Portal](#). Create a new account or log in to an existing account. Apply for an **Address Assignment permit**. The key information required is the address of the main home and contact information for the applicant. A Pre-Submittal meeting is required prior to applying for an address permit.

Address Assignment Permit Number \_\_\_\_\_

Main Home Address \_\_\_\_\_

ADU address \_\_\_\_\_

## DETACHED ACCESSORY DWELLING UNIT (ADU)

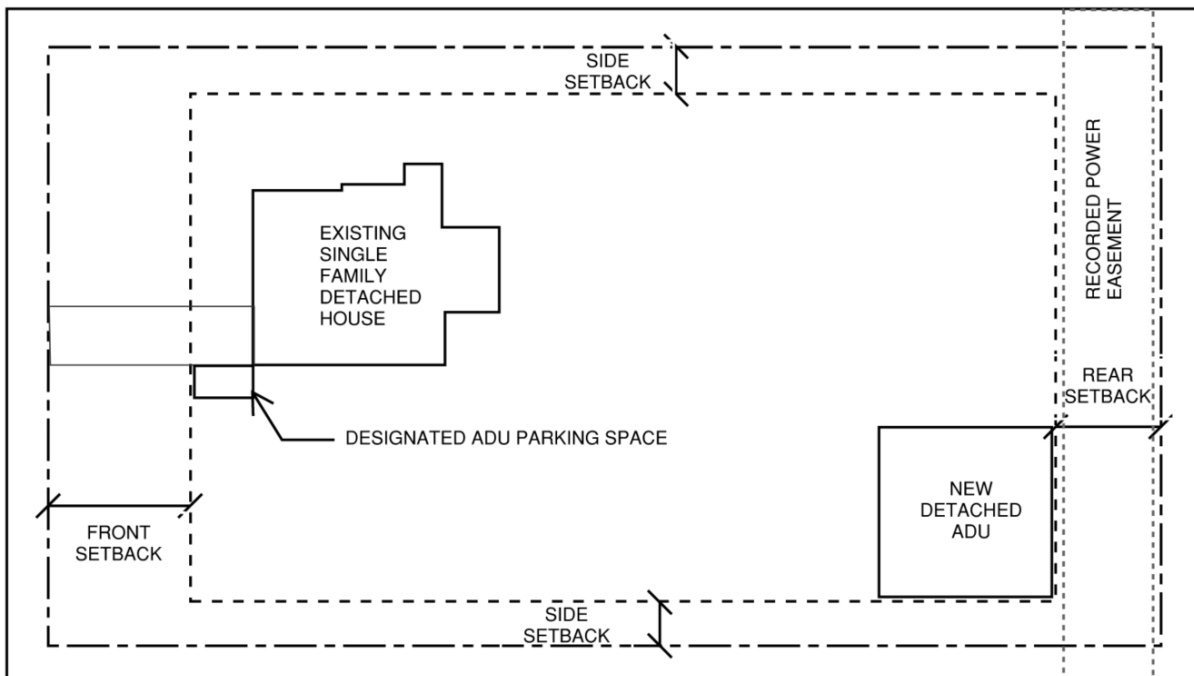
### 4. SUBMIT A COMPLETED DETACHED ADU PERMIT APPLICATION

Applications may be submitted by visiting the [Centennial Permit Portal](#). It is important that the permit/application is filled out completely to the best of your knowledge with the NEW address assignment and that you provide any additional pertinent information (i.e., owner and contractor contact information). Fill in the blanks on page 10 and indicate which construction materials will be used. It is important to print legibly to help staff review the submitted information. In most cases, the information provided within this worksheet will satisfy the City's requirement for a complete submittal.

### 5. PROVIDE SITE/PLOT PLANS

- Show the dimensions of your project and its relationship to existing setbacks, easements, structures on the property and the distance to property lines (an example has been provided below).
  - a. Structures shall not be located on easements.
  - b. A survey from a registered land surveyor will be required if your project is located in a protected area.
  
- Be sure to show the location of your utilities (i.e. gas, water, sewer and electric) and any existing meters. If the project will require moving any utilities or meters, show where those will be relocated.
  - a. If you do not know the locations of your utilities, contact the *Utility Notification Center of Colorado* 1-800-922-1987. **\*Remember to ask them about the cost of this service\***
  
- Provide the updated Lot Coverage (see LDC Section 12-3-205).
- Provide the height of new structures (see LDC Section 12-3-304).
- Provide the location of at least one off-street parking space for ADU tenants (See LDC Table 12-5-202A).

### EXAMPLE SITE PLAN





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### 6. PROVIDE A FLOOR PLAN

- A simple floor plan is required to show the dimensions of the new Attached ADU. ADUs must meet standards in the [City's current adopted](#) International Residential Code and National Electrical Code.
  - Include the main home's dimensions and rooms in the floor plan. The ADU cannot exceed 50% of the principal home's footprint.
  - Include any modifications to wall openings and/or windows with dimensions, and any items to be relocated.
  - Special consideration will be given to any new openings that exceed 6' in a bearing wall of the main home. A plan from a registered engineer may be required in these instances.
  - Fire-resistant construction may be required based on the distance to other homes.
  - Each ADU must provide a kitchen (includes a stove/cooktop, range, oven, or one or more 220 volt or greater outlets or gas line connections with appropriate ventilation), at least one bathroom and fan, and a bedroom or somewhere of the intent or designated for sleeping.
  - Habitable rooms shall comply with the requirements for natural light and ventilation shown in the table below. When the requirements for light and ventilation cannot be met by natural means, a whole house ventilation system shall be provided in accordance with section M1507 of the International Residential Code.
  - Heat is required in all habitable rooms. Show how the ADU will be supplied with heat.
  - Provide detail regarding plumbing and show furnace and water heater locations.
  - Receptacles shall be installed so that no point measured horizontally along the floor line of any wall space is more than 6 feet from a receptacle outlet.
  - Hallways of 10 feet or more in length shall have at least one receptacle outlet. The hall length shall be considered the length measured along the centerline of the hall without passing through a doorway.
  - GFCI protection shall be provided as outlined in the International Residential Code section E3902.
  - Smoke detectors are required in homes. Regulations call for detectors to be powered by electricity (not battery-operated).
  - ADUs cannot enclose existing bedroom or basement egress window/s.
  - List window dimensions and type of windows being installed.

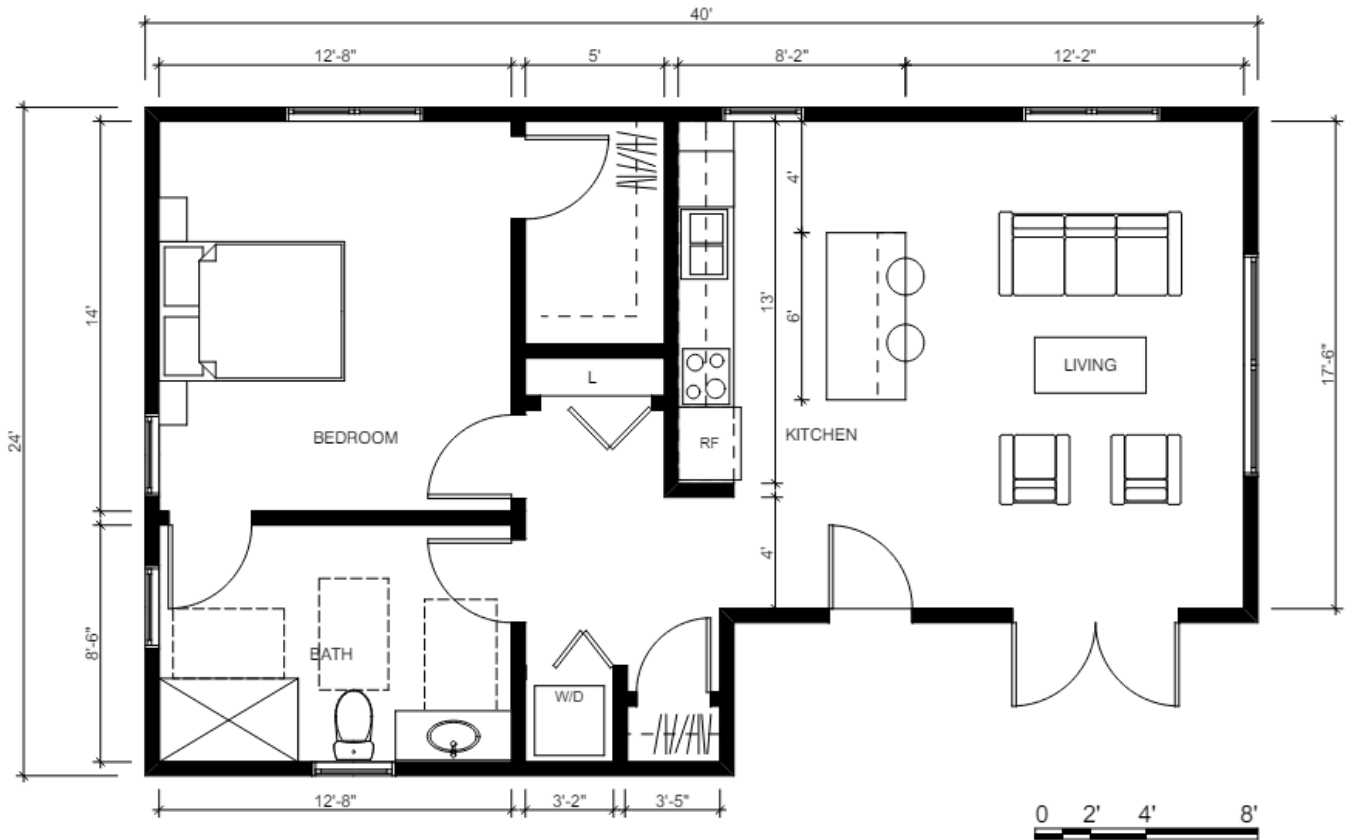


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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### Example Floor Plan



\*Example ADU floor plan from Stephen Dalton Architects [www.SDArchitects.net](http://www.SDArchitects.net)



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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### 7. DESIGN REQUIREMENTS

ADUs require their own separate entrance. This can be provided through an external door or from inside the entrance to the main house (for example, through a shared foyer or mud room).

Detached ADUs and attached ADUs that are constructed as an addition to the main house need to be designed consistently with the main house in at least three of the following design elements:

- Roof pitch and form
- Soffit and fascia style
- Exterior wall cladding color, style, and/or material
- Window style, trim, and orientation
- Exterior door style
- Architectural features such as but not exclusive of, building recessions or projections, dormers, balconies, porches, columns, and prominent entry features
- Color palette

Please check which three (3) design requirements above are being met with the new ADU.

Provide images of the main home and elevations/photos of the proposed ADU showing the three (3) design requirements.

Please describe how these three design requirements are being met: \_\_\_\_\_

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### 8. PROVIDE A WILL-SERVE LETTER FROM UTILITY COMPANIES

A will serve letter from all applicable utility districts (water, sewer, gas/electric) will be required as part of the permit application.



## DETACHED ACCESSORY DWELLING UNIT (ADU)

### ADDITIONAL CONSIDERATIONS.

The following are not required to be indicated on a site plan or floor plan, but property owners may wish to consider them before finalizing an application.

1. How will the ADU occupant get from the sidewalk or parking space to their front door? Will there be a paved path for access?
2. Where will ADU mail be delivered?
3. Will the ADU occupant share trash/recycling service with the main home, or will the ADU occupant need space for separate trash/recycling receptacles? Note: LDC Section 12-3-608. Individual garbage containers must have a cover and be screened from public view except when placed at the curbside for collection.
4. The ADU should not compromise proper drainage. Consider how your site will be graded around the newly installed ADU.

I am returning this document to the City of Centennial as part of my submittal for a building permit. I have read this document in its entirety and understand its content. Upon reading this document, I understand that additional materials may be required of me prior to obtaining a permit. I will adhere to the building codes adopted by the City of Centennial in the construction of my project.

X

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Signature/Date



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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### CONSTRUCTION DETAILS

#### 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 or 811. 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 and CO 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.

Carbon Monoxide alarms are required on each floor with bedrooms. They are recommended to be located no farther than 15 ft. from any bedroom entrance. Do not install within 15 ft. of a fuel burning appliances. Follow manufacture's recommendations for location testing and replacement.

**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.

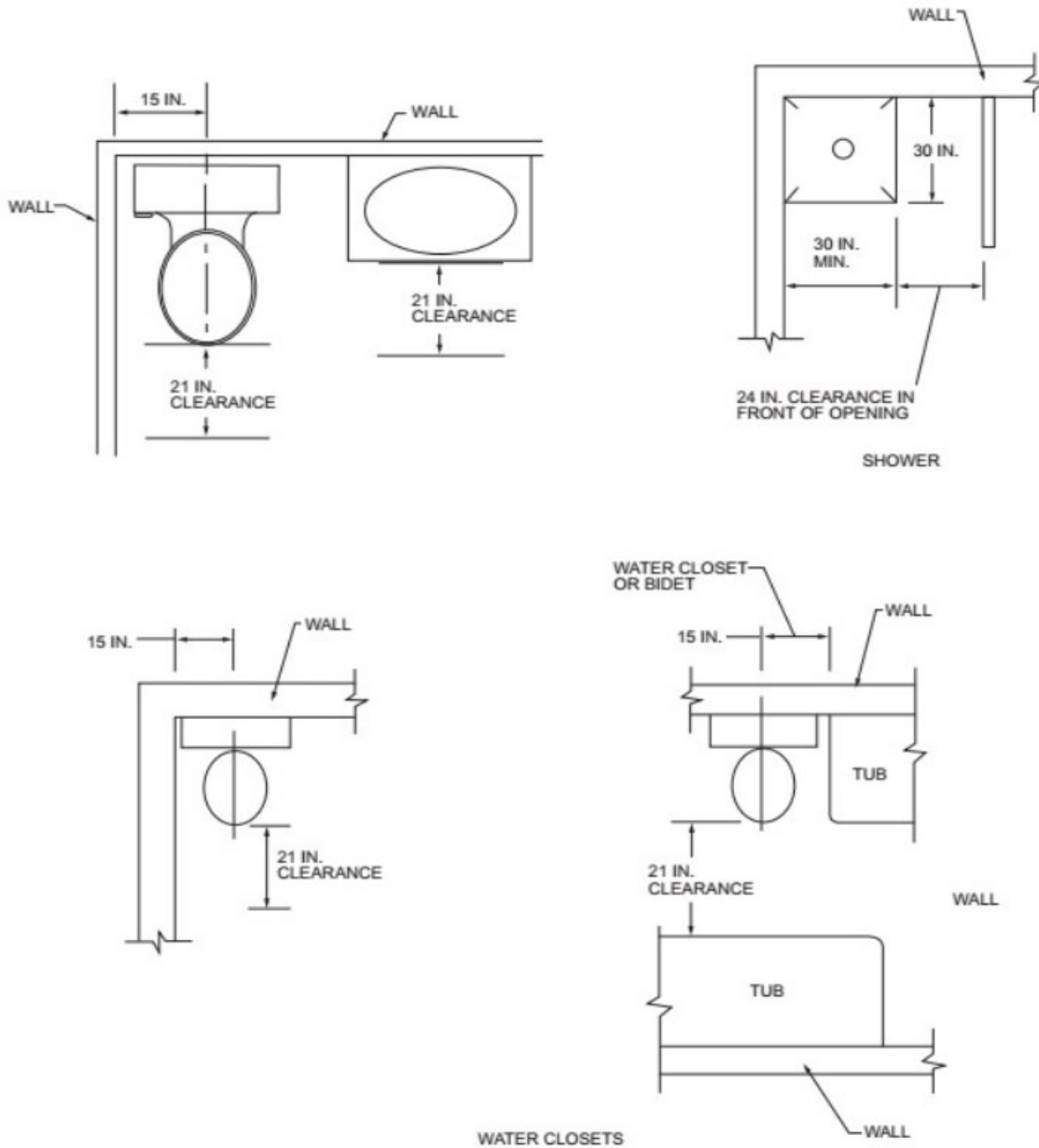


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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### FIXTURE CLEARANCE REQUIREMENTS



**FIGURE R307.1 MINIMUM FIXTURE CLEARANCES**





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### Construction Detail Notes:

#### ROOM PLANNING REQUIREMENTS (R303 through R305)

Use	Area (ft <sup>2</sup> )	Width	Ceiling height <sup>†</sup>	Natural light*	Natural ventilation*
Living	70	7'-0"	7'-0"	8% floor area	4% floor area
Dining	70	7'-0"	7'-0"	8% floor area	4% floor area
Kitchen	N.A.	N.A.	7'-0"	8% floor area	4% floor area
Bedroom	70	7'-0"	7'-0"	8% floor area	4% floor area
Bathroom	N.A.	N.A.	6'-8"	3 square feet	1 1/2 square feet

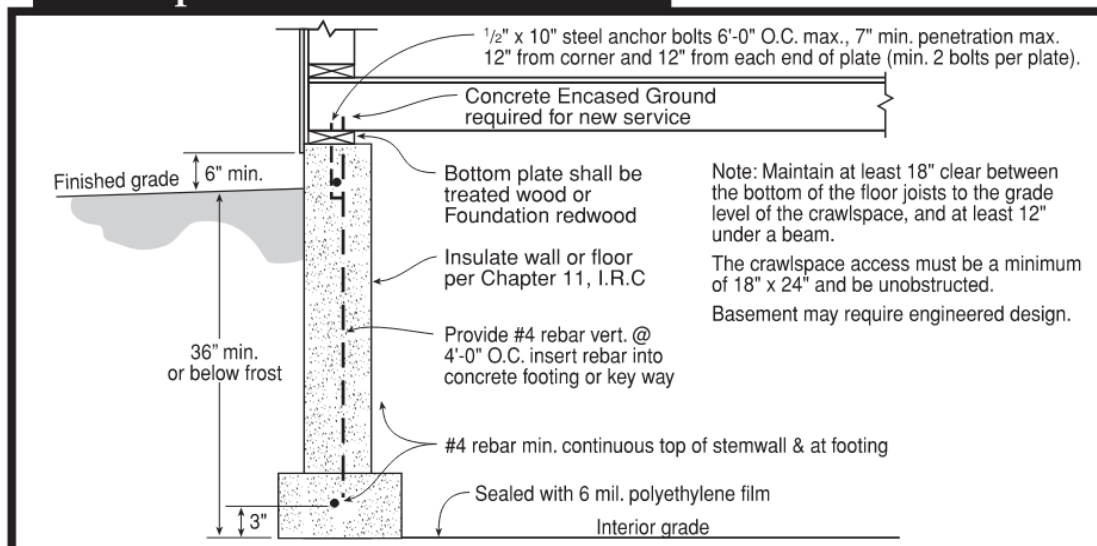
\* See Sections R303.1 & R303.3 for mechanical ventilation and artificial light and R303.4 for required whole-house mechanical ventilation.

† 6'-8" min. at plumbing fixtures and for non-habitable basements.

- Homes with automatic fire suppression systems (fire sprinklers) require suppression plans to be submitted, reviewed, and approved by South Metro Fire Rescue. Please click [HERE](#) to learn more about submittal requirements for South Metro Fire Rescue.
- Provide solid 2x blocking between rafters or trusses and roof tie downs.
- Attic ventilation and access may be required.
- For roofs with slopes less than 4:12 follow manufacturer's instructions for low slope application of roofing material.
- Pre-engineered floor systems may be used and should be installed according to the manufacturer's installation instructions.
- When constructing a new roof 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 1" thick and should be at least as wide as the base of the new rafter.
- For all pre-engineered systems, the manufacturer's installation instructions must be available to the inspector on site.  
\*Failure to provide these materials upon request will result in your project failing inspection.

### CRAWL SPACE FOUNDATION DETAIL (Additions over basements will require an engineer designed foundation.)

#### Crawlspace Foundation Detail A

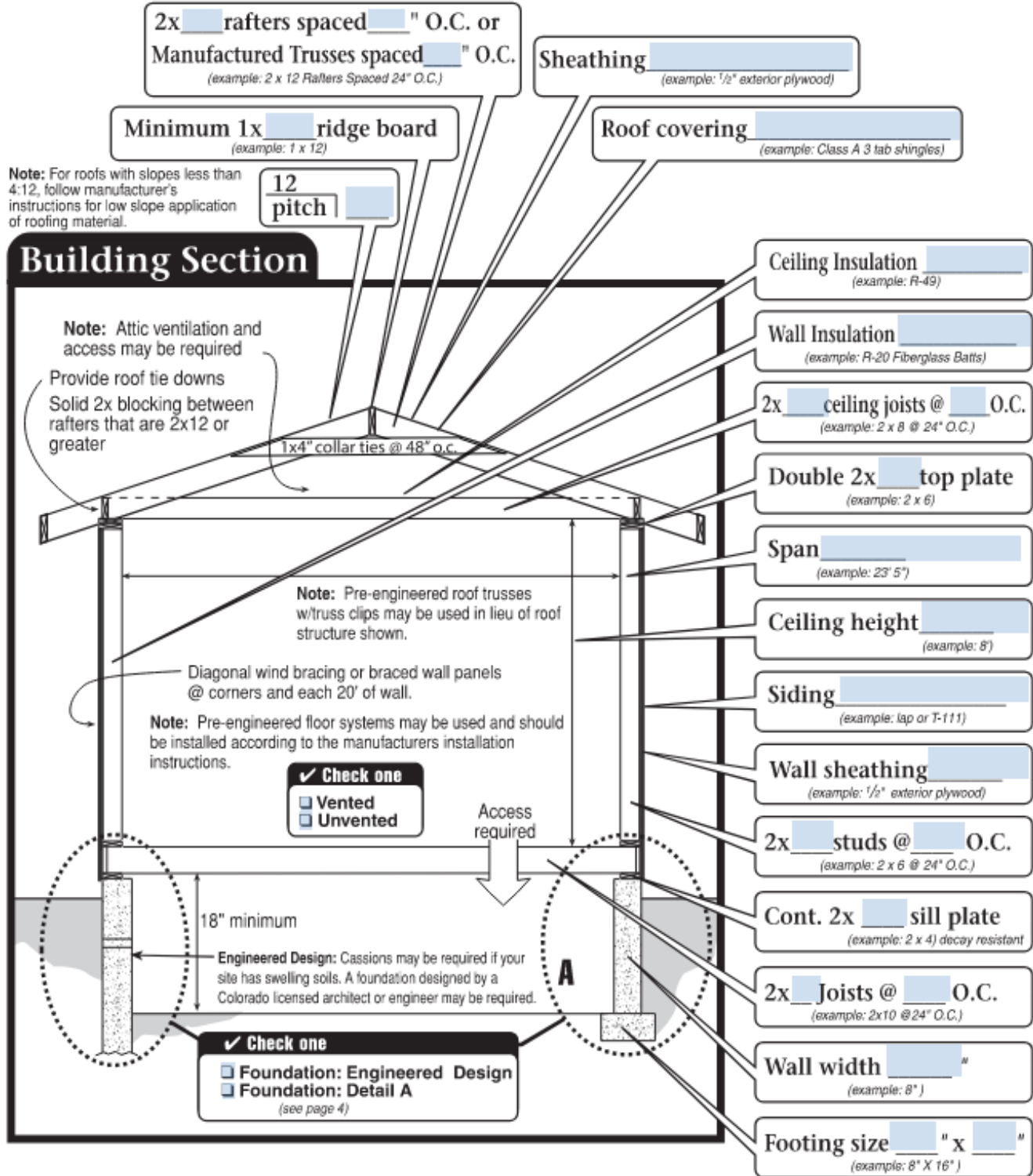




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## DETACHED ACCESSORY DWELLING UNIT (ADU)





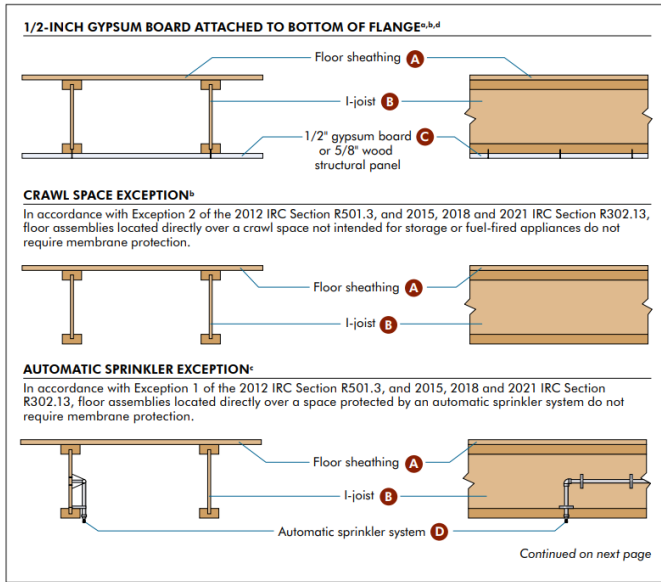
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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### FIRE PROTECTION OF FLOORS (FIREBLOCKING) – EXAMPLES IRC Section R302.13

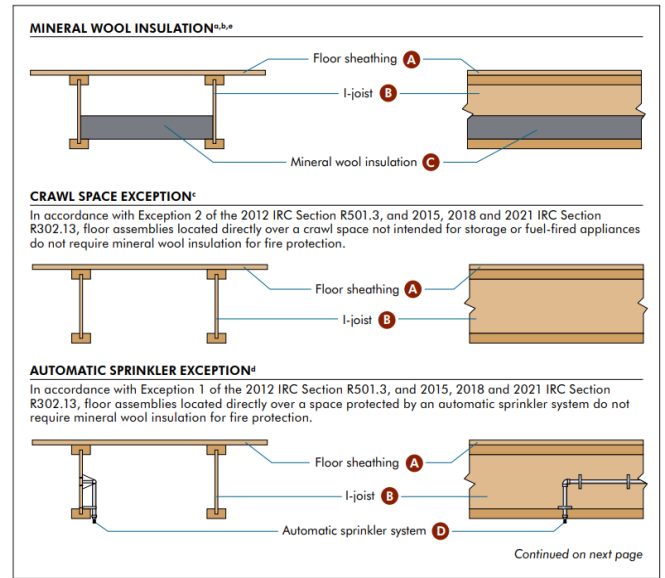
#### Fire Protection: 1/2-inch Gypsum Board Attached to Bottom of Flange

The following fire resistance design represents the default protection specified in the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13.



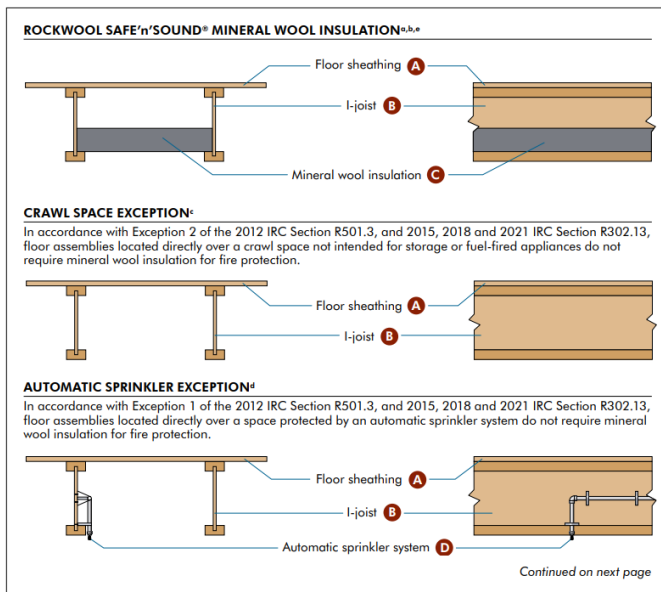
#### Fire Protection: Mineral Wool Insulation

The following fire resistance design is an alternative to the 2-by-10 dimensional lumber prescribed in Exception 4 of 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13 with demonstrated equivalent fire performance.



#### Fire Protection: Rockwool SAFE'n'Sound® Mineral Wool Insulation

The following fire resistance design is an alternative to the 2-by-10 dimensional lumber prescribed in Exception 4 of the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13, with demonstrated equivalent fire performance.





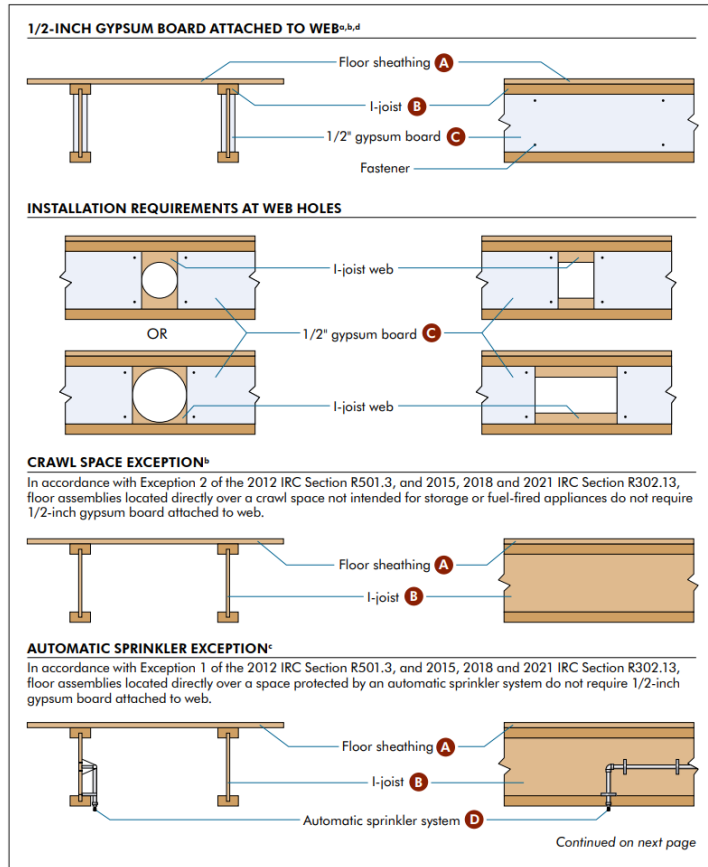
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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### FIRE PROTECTION OF FLOORS – EXAMPLES (CONTINUED)

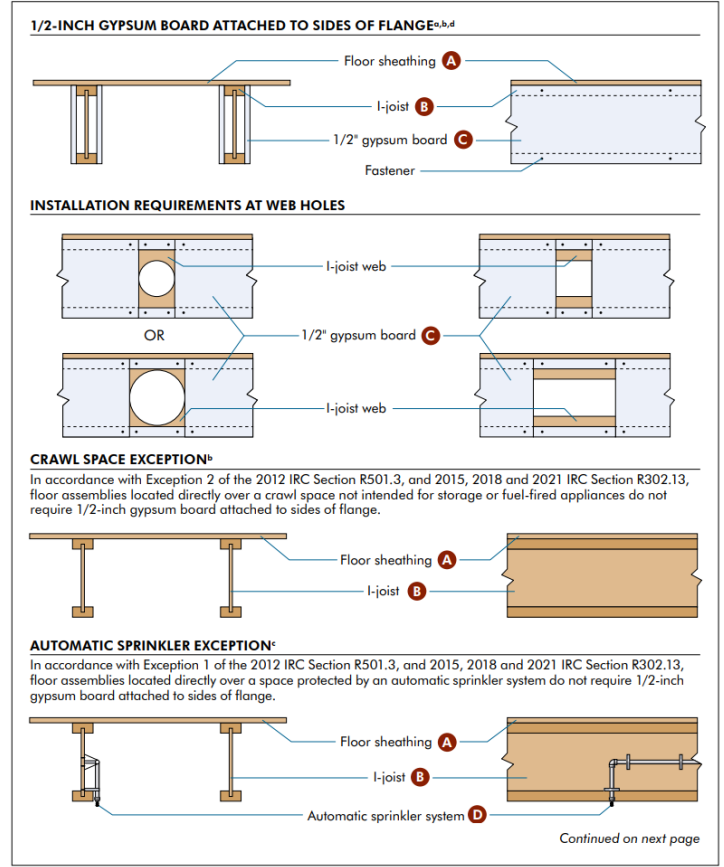
#### Fire Protection: 1/2-inch Gypsum Board Attached Directly to Web

The following fire resistance design is an alternative to the 2-by-10 dimensional lumber prescribed in Exception 4 of the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13 with demonstrated equivalent fire performance.



#### Fire Protection: 1/2-inch Gypsum Board Attached Directly to Sides of Flange

The following fire resistance design is an alternative to the 2-by-10 dimensional lumber prescribed in Exception 4 of 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13 with demonstrated equivalent fire performance.





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## DETACHED ACCESSORY DWELLING UNIT (ADU)

### FIRE PROTECTION OF FLOORS (FIREBLOCKING) – EXAMPLES (CONTINUED)

#### Fire Protection: 1/2-inch Gypsum Board Installed on Top of the Bottom Flange

The following fire resistance design is an alternative to the 2-by-10 dimensional lumber prescribed in Exception 4 of the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13 with demonstrated equivalent fire performance.

**1/2-INCH GYPSUM BOARD<sup>a,d</sup>**

Joist spacing (in.)	Required length for gypsum boards (in.)
12	11-1/8 ± 1/8
16	15-1/8 ± 1/8
19.2	18-3/8 ± 1/8

**Note:**  
Gypsum board lengths shown above provide at least a 1/4-inch bearing on the top of the bottom flange in each I-joint as installed. For other joist spacings, the required gypsum board lengths shall be adjusted so that the required gypsum board lengths are determined based on a full bearing on the flange at one end of the joist spacing, while maintaining at least a 1/4-inch bearing at the other end. If double joists are used, the required gypsum board lengths shall be reduced from the table above by a length equal to the flange width.

**CRAWL SPACE EXCEPTION<sup>b</sup>**  
In accordance with Exception 2 of the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13, floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances do not require gypsum board for fire protection.

**AUTOMATIC SPRINKLER EXCEPTION<sup>c</sup>**  
In accordance with Exception 1 of the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13, floor assemblies located directly over a space protected by an automatic sprinkler system do not require gypsum board for fire protection.

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#### Fire Protection: 5/8-inch Gypsum Board Installed on Top of the Bottom Flange

The following fire resistance design is an alternative to the 2-by-10 dimensional lumber prescribed in Exception 4 of the 2012 IRC Section R501.3, and 2015, 2018 and 2021 IRC Section R302.13 with demonstrated equivalent fire performance.

**5/8-INCH GYPSUM BOARD<sup>a,d</sup>**

Joist spacing (in.)	Required length for gypsum boards (in.)
12	11-1/8 ± 1/8
16	15-1/8 ± 1/8
19.2	18-3/8 ± 1/8
24	23-1/8 ± 1/8

**Note:**  
Gypsum board lengths shown above provide at least a 1/4-inch bearing on the top of the bottom flange in each I-joint as installed. For other joist spacings, the required gypsum board lengths shall be adjusted so that the required gypsum board lengths are determined based on a full bearing on the flange at one end of the joist spacing, while maintaining at least a 1/4-inch bearing at the other end. If double joists are used, the required gypsum board lengths shall be reduced from the table above by a length equal to the flange width.

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