



# Major Residential Alterations and Additions

## Informational Guide

### The Major Alteration and Addition Ordinance

On February 12, 2015, Portland City Council added Section 24.55.210, “Major Residential Alterations and Additions,” to Title 24, Portland’s Building Regulations. Effective April 20, 2015, the new major residential alteration and addition (MRAA) provisions and associated procedures require a 35-day delay period for MRAA permits in order for the applicant to notify abutting properties and e-mail Recognized Organizations. Additionally, the applicant must submit a hazardous material (asbestos and lead-based paint) certification to the Bureau of Development Services (BDS) before the MRAA permit can be issued. For more information on these requirements, see “Major Alteration and Addition Permit Requirements” at the end of this Guide.

### Where do the Major Alteration and Addition Requirements Apply?

The requirements apply to all residential structures that have a residential Comprehensive Map Designation. They do not apply to properties, including multifamily commercial properties or residences, in non-residential comprehensive plan map areas.

There are some types of residential structures and projects that are exempt from the MRAA ordinance:

- **Accessory structures**, such as detached garages, are exempt from the major alteration/addition requirements. If the building under remodel is considered an accessory structure, the project will not be designated as a major alteration/addition even if it is converted to habitable space as a result of the remodel. NOTE: an attached garage is considered part of the main house. If you are altering or adding to a house that has an attached garage, the garage will be treated as part of the house in determining whether the work is a major alteration/addition and whether the MRAA ordinance requirements apply.
- **Conversions that don’t remove or increase exterior wall area:** Existing permitted areas such as unfinished basements and attics that are converted to habitable space without removing or increasing exterior wall area, are not considered major alterations/additions even if the project adds habitable floor area in excess of 800 square feet or 100% of the foundation footprint area.
- **Detached accessory dwelling units (ADU’s):** The ordinance does not apply to new construction of detached ADU’s.

### What Qualifies as a Major Alteration or Addition?

The following types of work are defined in the ordinance as major alterations or additions:

- **Adding any new story**, including a basement or other below-grade structure. Raising a structure to meet the required headroom in a basement is considered the same as creating a basement;
- **Increasing or replacing 50 percent or more of the exterior wall area on any floor.** If the subflooring under an exterior wall is removed, it will be treated as if the wall was removed;
- **Adding total new floor area to the existing structure that exceeds 800 square feet;** or
- **Adding an area exceeding 100 percent of the existing foundation footprint area of the structure.**

### How to Use this Guide

Each section of this Guide provides detailed information about one of the types of alteration/addition criteria listed above, along with an additional section on porches, decks, garages, and carports. Where necessary, the Guide includes calculation methods and illustrations to help you determine if you are planning a major alteration or addition. Not all examples are included. Your scope of work may qualify based on one of the definitions above, but may not be shown in this Guide.

# 1 Have I Added a Story?

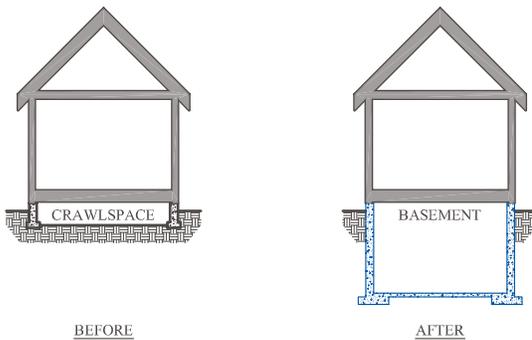
Adding a story, either above or below the existing house, qualifies as a major alteration/addition. Tables 1 and 2 define what adding a story above or below the house means.

## A. Have I added a story to the bottom of the house?

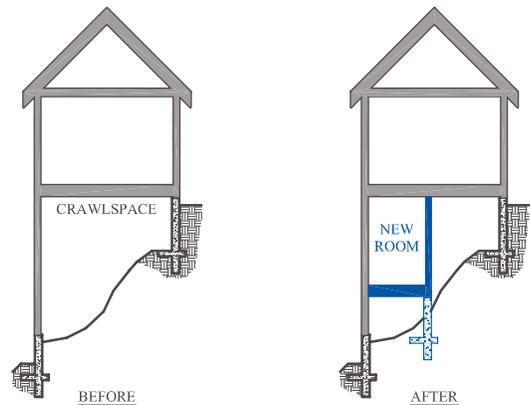
**Table 1: Adding a story to the bottom of the house**

Type of alteration/addition	Is it adding a story?	Is it a major addition/alteration?
The crawlspace is excavated and new foundation is constructed to create a full basement for either habitable or storage space (see Figure 1).	Yes	Major alteration/addition
Adding structure below the lowest existing story to create additional useable space (see Figure 2).	Yes	Major alteration/addition
The house is being raised above its current position to create additional basement height.	Yes	Major alteration/addition
The house is staying in its current position, the existing foundation is still in place and carrying the existing loads, but the finished basement is being excavated for better headroom (see Figure 3).	No	This is not considered a major alteration/addition
The foundation is being replaced without changing the basement height.	No	This is not considered a major alteration/addition based on the addition of a story. However, the project may be a major alteration/addition if you are increasing or replacing 50% or more of the basement walls. (See Section 2.)

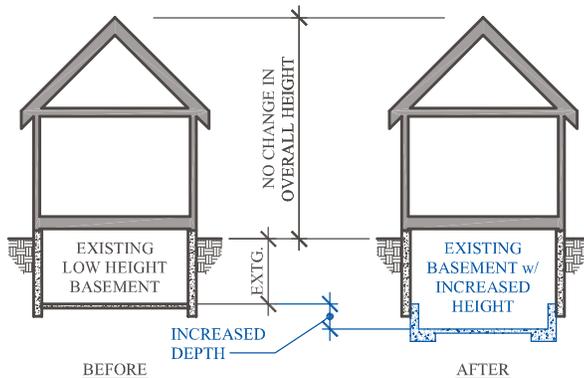
**Figure 1: Excavating a crawl space to create a full basement**



**Figure 2: Adding structure below the lowest existing story to create useable space**



**Figure 3: Existing basement excavated without raising house**



## B. Have I added a story to the top of the house?

- **Existing finished attic:** If the alteration/addition is to an existing finished attic, the attic is already considered a separate story. In this case, you'll need to consider whether you are increasing or replacing 50% or more of the exterior wall area of that story. (See Section 2.)
- **Converting unfinished attic to habitable space:** If you are converting an unfinished attic to habitable space, the completed conversion will be considered its own separate story. However, the project will only qualify as a major alteration/addition if the remodeling involves replacing or increasing the exterior attic walls. If the project doesn't involve any alteration of the existing exterior attic walls, it will not be considered a major alteration/addition.

**Table 2: Adding a story to the top of the house**

Type of alteration/addition	Is it adding a story?	Is it a major addition/alteration?
An unfinished attic is removed and replaced by new walls and roof structure to create new living space.	Yes	Major alteration/addition
An unfinished attic is converted to habitable space without altering the exterior walls or roof.	Not for purposes of determining MRAA status	This is not considered major alteration/addition
An unfinished attic is converted to habitable space by modifying part of the roof or walls. Example, adding a dormer to increase ceiling height in part of the attic.	Yes	Major alteration/addition
The size of an unfinished attic is increased to create a larger storage area by modifying all or part of the roof height or wall area.	No	This is not considered a major alteration/addition based on the addition of a story. However, the project may be a major alteration/addition if you are increasing or replacing 50% or more of the exterior wall area. (See Section 2.)

## 2 Have I Increased or Replaced 50% or More of the Exterior Wall on Any Floor?

### A. What does "increased" and "replaced" wall area mean?

The intent of the major alteration/addition portion of the ordinance is to identify wall area that will be increased or replaced by the proposed work in order to determine if there will be a significant impact on neighbors near the project site.

- **"Increased"** wall area is the difference between the total existing wall area before the start of the project, and the total **final** wall area of the completed project. **Final wall area** means the amount of existing exterior wall remaining, plus the new wall area created, at the completion of the alteration/addition.

**For clarity when explaining how to make wall area calculations, this Guide will use the term "final" wall area when calculating the amount of wall area "increase."**

To calculate increased exterior wall area, first determine the existing and final exterior wall areas:

Existing exterior wall area = the exterior wall area of the house prior to remodeling.

Final wall area = existing exterior wall area remaining + new exterior wall area created when the remodel is completed.

Increased wall area = final wall area - existing wall area.

- **"Replaced"** wall area is the amount of existing exterior wall that is being permanently removed, torn out and rebuilt in the same location, or that becomes interior wall area as a result of the alteration or addition. A wall that is braced in place while the subfloor below is removed/replaced is also considered a replaced wall area.

**For clarity when explaining how to make wall area calculations, this Guide will use the term “removed” when calculating the amount of “replaced” wall area.**

To determine the amount of replaced exterior wall area, add all the “removed” wall areas:

- Permanently removed exterior wall area
  - + Exterior wall area rebuilt in same location
  - + Exterior walls converted to interior wall area
  - + Wall area where subfloor is replaced under wall
- 
- = Total removed wall area

Total removed wall area = Replaced wall area

**B. How do I know if I have a major alteration or addition based on the amount of wall area I’m increasing or replacing?**

You will need to calculate both the amount of increased and replaced wall area to determine if the project is a major alteration/addition.

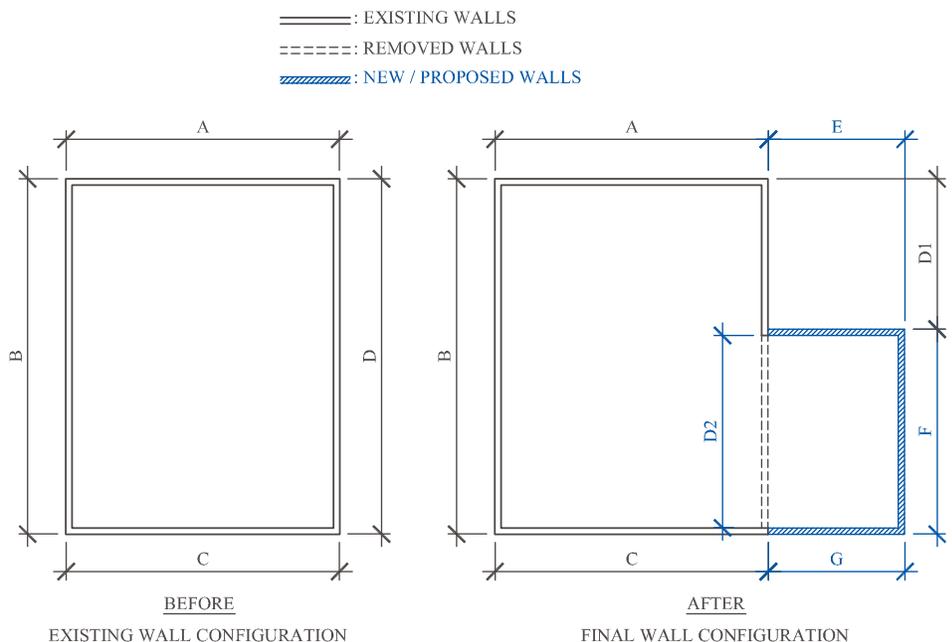
**Table 3: Is my project a major alteration or addition based on increased or replaced wall area?**

Wall Area Calculation	Is it a major addition/alteration?
<b>Increased wall area calculation:</b> Calculate the total existing exterior wall area of the story being remodeled. Then calculate the total exterior final wall area of that story when the project is completed. If the total final wall area is greater than or equal to 1.5 X the existing wall area, then	Work qualifies as a major alteration/addition
<b>Replaced wall area calculation:</b> Calculate the total existing wall area of the story being remodeled. Then calculate the total area of exterior wall being removed from that story. If the total removed wall area is greater than or equal to 50% of the existing wall area, then	Work qualifies as a major alteration/addition

**C. Example wall calculations for an addition project**

Use Figure 4 and the steps in Table 4 to determine if you have a major alteration or addition based on the amount of wall area you are replacing or increasing.

**Figure 4: Example addition project. (Before and after wall height remains the same.)**



**Table 4: Steps to calculate wall area for the addition project shown in Figure 4**

Step	Formula based on Figure 4
<b>Step 1: Determine wall areas</b> Identify total existing, removed, and final wall areas.	Total existing wall area = A+B+C+D Total removed wall area = D2 Total final wall area = A+B+C+D1+E+F+G
<b>Step 2: Calculate replaced wall area</b> Calculate whether the final wall area is greater than or equal to 1.5 X existing wall area.	Is $A+B+C+D1+E+F+G \geq (A+B+C+D) \times 1.5$ ?  If the final wall area $(A+B+C+D1+E+F+G) \geq 1.5 \times$ existing wall area $(A+B+C+D)$ , THEN the project is a major addition or alteration.
<b>Step 3: Calculate replaced wall area</b> Calculate whether the removed wall area is greater than or equal to 50% of the existing wall area.	Is $D2 \geq (A+B+C+D) \div 2$ ?  If the removed wall area $(D2)$ is $\geq 50\%$ of the existing wall area $[(A+B+C+D) \div 2]$ , THEN the project is major addition or alteration.

**D. Which existing walls are counted when determining whether a remodeling project qualifies as a major alteration/addition?**

Only the existing walls on the stories that are being remodeled are counted when calculating wall area.

**Example:** A 300 sf addition is constructed at the first floor of a two-story home. Only the first story exterior walls count toward the major alteration calculation. The basement, second story, and unfinished attic gable walls would not be counted.

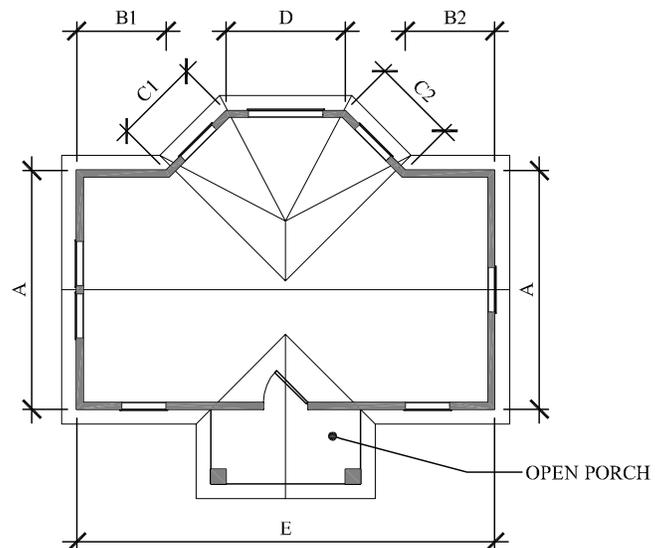
**E. What if alterations or additions are being done to more than one story?**

If more than one story of the home is affected by an alteration or addition, you'll need to calculate the wall area of each affected story using the above method to determine if the work qualifies as a major alteration/addition. If the work on any of the stories qualifies as a major alteration/addition, the project will be considered a major alteration/addition.

**F. How is wall area measured?**

- For each story of the house, the total exterior wall area is the sum of the various wall plane areas at that story.
- The area of a wall plane is the height x the length of that wall. For walls with sloped roofs (such as gable walls), the wall plane will be a triangular area.
- The area of window and door openings is counted in determining existing and final wall area.
- Crawl space walls do not count as existing wall area.
- Where there are jogs in the wall because of bump outs or angle changes, the area of each wall segment is added together to determine the total exterior wall area for that side of the house. (See Figure 5.)

**Figure 5: How to calculate area for exterior walls with bump-outs**



*In Figure 5, the area of the wall is calculated by adding the length of B1+C1+D+C2+B2 and multiplying it by the height of the story.*

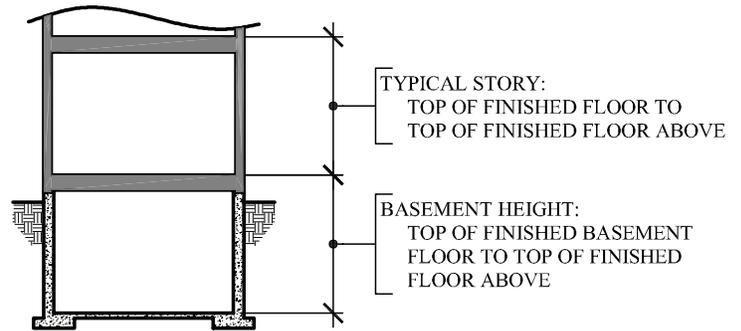
## G. How is exterior wall length measured?

- Exterior wall length is measured from corner to corner on the exterior side of the wall siding.

## H. How is exterior wall height measured for basements and typical stories?

- The height of exterior wall planes is the height of the story where the wall is located.
- Basement wall height** is measured from the top of the finished basement floor to the finished floor of the next story above. (See Figure 6.)
- The height of a typical story wall** is measured from its finished floor to the finished floor of the next story above. (See Figure 6.)

Figure 6: Measuring basement and typical story height



## I. How is exterior attic wall height measured?

The height of an exterior attic wall is measured from the finished floor of the attic to the top of the roof covering over that wall.

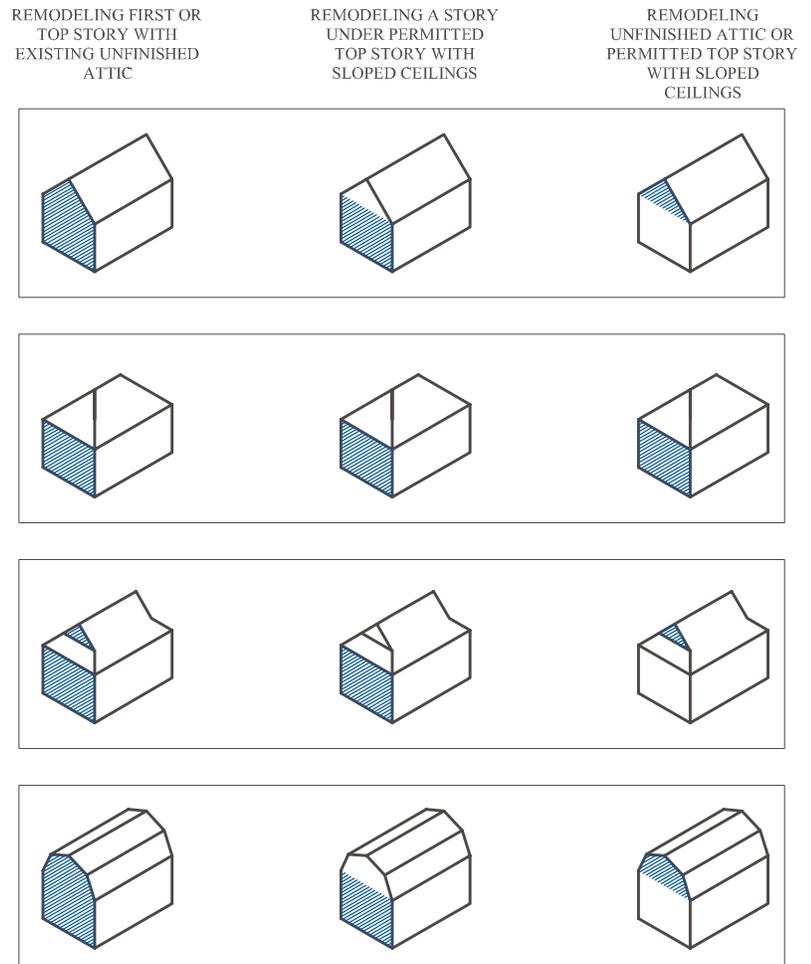
**Example:** To determine the area of a triangular attic gable wall, first measure the gable wall height from finished attic floor to the peak of roof over the gable. Second, determine the gable wall length by measuring the distance between the outside corners of the attic wall at the finished floor level of the attic. To find the triangular gable area, perform the calculation below:

$$(\text{length} \times \text{height}) \div 2 = \text{triangular gable wall area}$$

Figure 7: Walls to include when determining wall area for top story and attic remodels

## J. How are the exterior wall areas of finished and unfinished attics calculated?

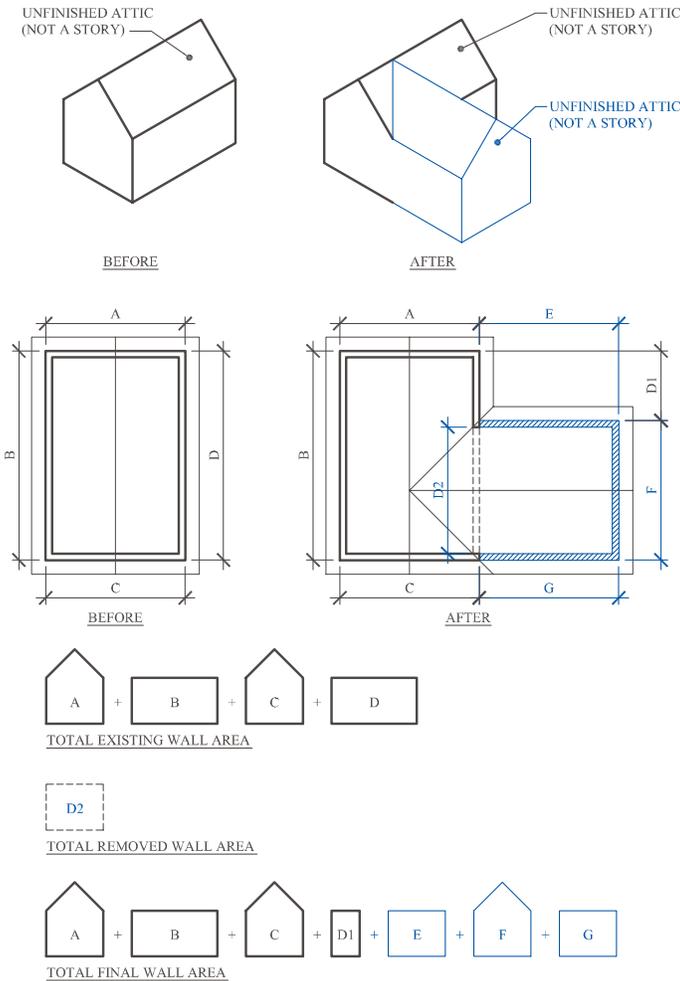
- Unfinished Attics** are not considered a separate story. If you are remodeling the story below the attic, the exterior wall area of the unfinished attic is included with the wall area of the lower story. If you are remodeling the attic alone, only the exterior wall area for attic is included in wall area calculations. (See Figure 7.)
- Finished Attics** are considered a separate story. To make this clear, finished attics are referred to in Figures 7-11 as a **“top story with sloped ceilings.”** If you are remodeling the story below a finished attic, only the exterior walls for that story are included in the wall area calculations. If you are remodeling the finished attic, only the exterior walls of the finished attic are included in the wall area calculations. (See Figure 7.)



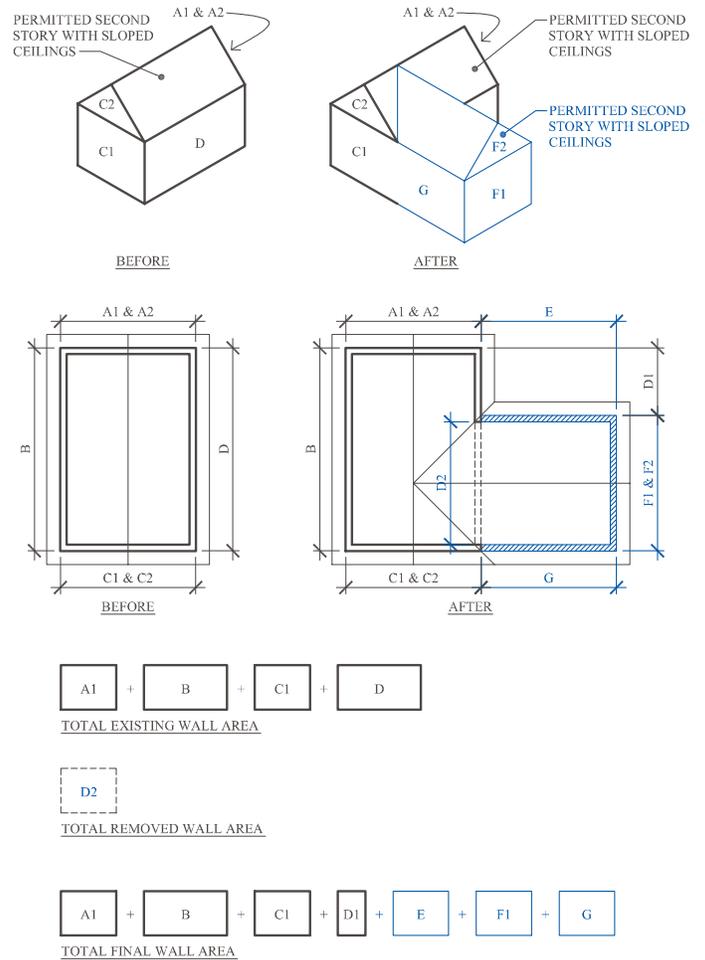
## K. Example Wall Area Calculations

Figures 8-11 show examples of how to identify the existing, removed, and final wall areas of your project in order to calculate whether you are increasing or replacing 50% or more of the existing wall area of the house.

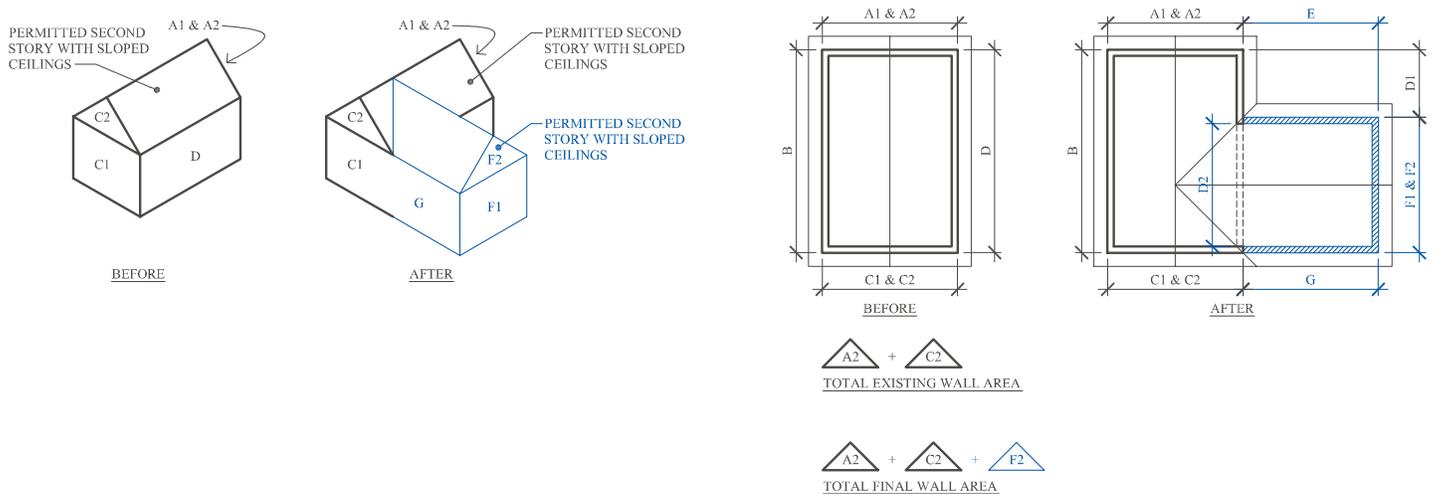
**Figure 8: Wall area calculations for a house addition with unfinished attic**



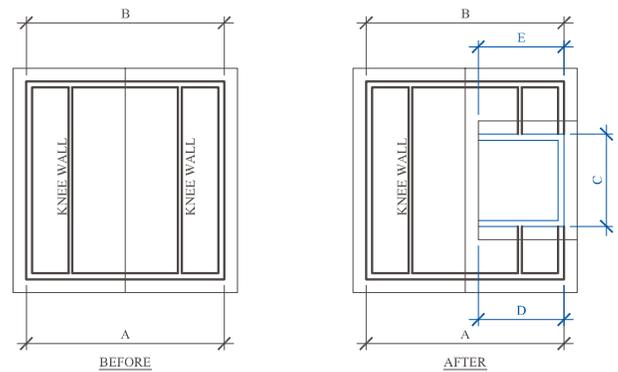
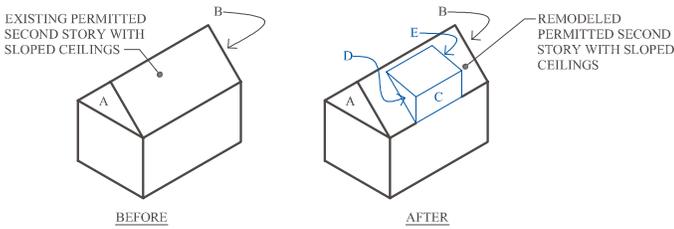
**Figure 9: First story wall area calculations for a first and second story addition to a two-story house**



**Figure 10: Second story wall area calculations for a first and second story addition to a two-story house**



**Figure 11: Dormer addition to an existing top story**



**Note for Figure 11:** If the existing attic was UNFINISHED in this example, and it was converted to habitable space, the project would be considered a major addition based on the fact that a story was added to the house by increasing exterior wall area. (See Section 1B.)

$$\triangle A + \triangle B$$

TOTAL EXISTING WALL AREA

$$\triangle A + \triangle B + \square C + \triangle D + \triangle E$$

TOTAL FINAL WALL AREA

### 3 Have I Added More than 800 Square Feet of Floor Area or More than 100% of the Existing Foundation Area?

Adding more than 800 square feet of floor area or floor area exceeding 100% of the existing foundation footprint qualifies the project as a major addition/alteration. See Table 5 below.

**Table 5: Determining if your project is a major addition based on floor area**

Type of addition	Is it a major addition?
If total amount of new floor area being added to the house is more than 800 square feet, then  <b>Example:</b> 300 sf of additional floor area is being added in the basement, 300 sf on first floor, and 250 sf on 2nd floor for a total of 850 square feet.	Project qualifies as a major addition
Determine the existing foundation area. If the total proposed floor area is 2x the foundation footprint area or more, then	Project qualifies as a major addition

#### A. How do I measure the length of foundation walls to determine the foundation area?

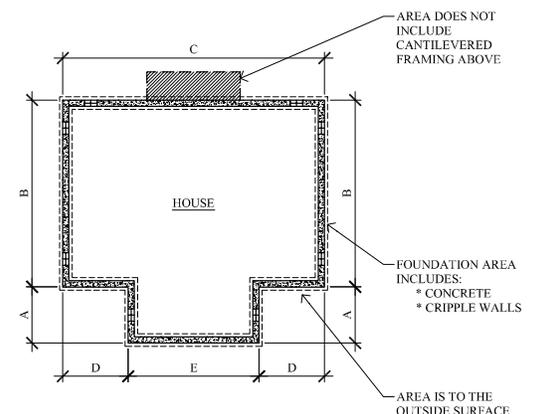
- Foundation walls are measured from corner to corner on the exterior side of the foundation stem wall or wood pony wall.

#### B. How will the floor area of bump-outs and other elements protruding beyond the foundation perimeter be calculated?

- The floor area of bump-outs and other protruding elements do not count towards the calculation of the existing floor area, unless they have a foundation wall in line with the wall perimeter of the bump-out.
- The area of bump-outs and cantilevered areas are counted when determining the amount of new floor area added, even if they are not supported by perimeter foundation in line with the bump-out.

**Example:** A portion of a new family room added to the first story is cantilevered beyond the existing house foundation or is supported by posts. In either case, the portion of the family room extending beyond the foundation perimeter would count as newly added floor area.

**Figure 12: Measuring foundation area**



## 4 Do Porch, Deck and Garage Wall, Floor and Foundation Areas Count When Determining Whether a Project Is a Major Alteration or Addition?

This section covers how the area of porches, decks and garages are considered when making wall, floor, and foundation area calculations.

### A. Is the exterior wall, floor and foundation area of covered porches and decks considered when determining whether a project is a major alteration or addition?

- **Open porches and decks:** Open porches will not be considered in determining wall, floor, and foundation area. Walls associated with any roof structures connecting the porch to the main house are also excluded from calculating wall area.
- **Enclosed porches and decks:** The wall, floor, and foundation area of an enclosed porch or deck IS considered when determining whether a project is a major alteration or addition. An enclosed porch/deck is one that is: 1) completely enclosed with walls and/or glazing; and 2) is heated. If the porch/deck is enclosed, the exterior walls count toward wall area calculations for that story. If the enclosed porch/deck is supported at its perimeter by a foundation, the porch/deck counts toward existing floor and foundation area. The floor of a new enclosed porch or deck is counted when determining the amount of new floor area added, whether or not the porch/deck is supported by a perimeter foundation.

### B. How is the wall, floor, and foundation area calculated for attached and detached garages?

- **Garage and house with connected foundations:** A garage and a house with connected foundations will be considered as a single structure for determining wall, floor, and foundation area. (See Figure 13.)

**Example:** A house with a shared foundation between the house and garage is being remodeled. The wall, floor, and foundation area of both the house and garage are used to calculate the existing and final areas of the project.

**Example:** A garage with a foundation connected to the house foundation is being remodeled. The wall, floor, and foundation area of both the house and the garage are used to determine the existing and final areas of the project.

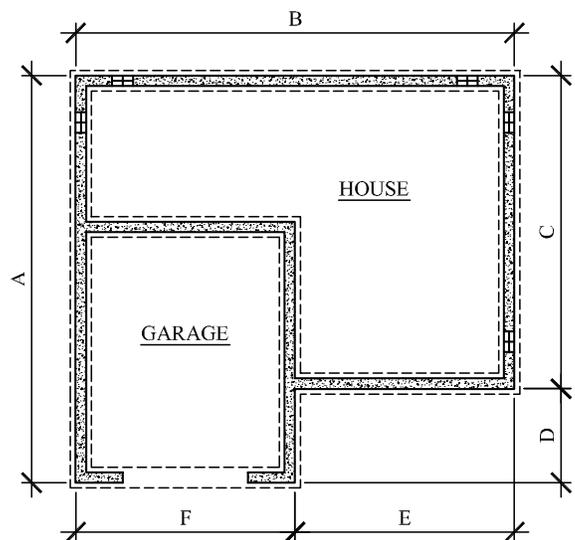
- **Garage with a separate foundation from the house:** The wall, floor and foundation area of a garage with a foundation that is not shared between the house and garage foundation is calculated separately from the house. (See Figure 14.)

**Example:** A house having a garage with a separate foundation is being remodeled. Only the wall, floor, and foundation area of the house itself are used to calculate the existing and final areas of the project.

**Example:** A garage with a separate foundation from the house is being remodeled. A separate garage is considered an accessory structure and is, therefore, exempt from the requirements of the ordinance.

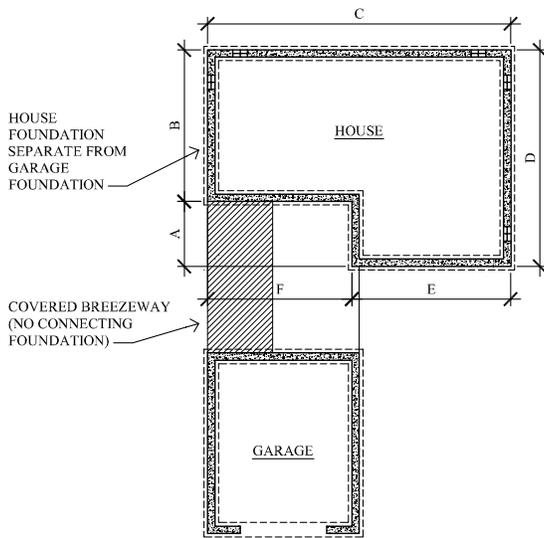
- **Carports and covered patios** do not count toward wall, floor, or foundation area. (See Figure 15.)

Figure 13: Garage and House Foundations Connected



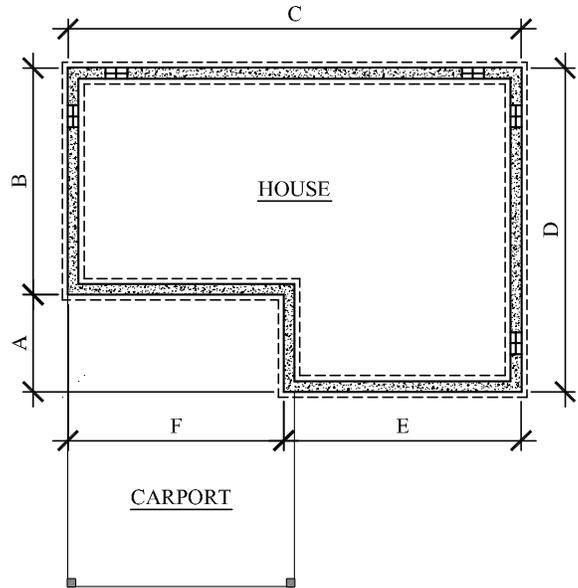
*In this example, the garage and house foundations are connected. The wall, floor, and foundation areas for BOTH the house and garage are included if either structure is being remodeled.*

**Figure 14: Garage and house foundations separate**



*In this example, the garage and house foundations are separate. (The breezeway is not considered a connection for the purposes of the MRAA ordinance.) If the house is remodeled, only the house walls, floor, and foundation areas are considered in area calculations for the project. The separate garage is considered an accessory structure and is EXEMPT from the MRAA ordinance requirements.*

**Figure 15: Carports and covered patios don't count toward area calculations**



## Triggering a Change to Major Alteration/Addition or Demolition Status After the Permit Is Issued

- Project changing to a major alteration/addition:** Changes to the scope of work after a permit has been issued require either a permit revision or a new permit, depending on the type of project change. Table 6 specifies the permitting requirements when the project changes from a major alteration/addition after the original permit has been issued. Though the permit type (alteration or addition) may change, the requirements for MRAA permits will be triggered when changing from a minor alteration or addition to a major alteration or addition. See page 11.

**Table 6: Permitting requirements for projects that change to a major alteration or addition**

Type of change	Example of change	Required Permit Change
Changes to scope of work don't change the project type	<ul style="list-style-type: none"> <li>Minor Alteration to Major Alteration</li> <li>Minor Addition to Major Addition</li> </ul>	Applicant submits plan changes as a revision to the existing permit  (If the project is in the FIR program, check with your FIR Inspector)
Changes to scope of work do change the project type	<ul style="list-style-type: none"> <li>Minor Alteration to Major Addition</li> <li>Minor Addition to Major Alteration</li> </ul>	Applicant must submit a new permit application  (If the project is in the FIR program, applicant must check with their FIR Inspector)

- Project changing from a major alteration to a demolition:** A change in the scope of work may shift the project from a major alteration/addition to a demolition. Please refer to the Demolition Informational Guide for specific criteria that qualify a project as a demolition. If your project changes from a major alteration/addition to a demolition, you'll need to stop work on the project, obtain a demolition permit, and meet the 35-day delay and notification requirements for demolition projects. Table 7 specifies the requirements for non-FIR and FIR permits.

**Table 7: Permitting projects that change from major alteration/addition to demolition**

Type of change	Required Permit Change
Project permit not issued under the FIR program	Applicant must submit a new permit application under the BDS new single family permit process
Project permit is issued under the FIR program	Project leaves the FIR program and applicant must submit a new permit application under BDS new single family permit process

- **Enforcement:** If a Building Inspector determines that modifications to the project scope have changed a project to a major alteration/addition, or to a demolition, without the required permit revision or new permit, the Inspector will issue a **Stop Work Order** for the project until the changes have been approved under permit.
- **Notification is the best prevention!** Make the required notifications at least 35 days in advance of starting work if there is ANY possibility that your project could become a major alteration/addition. This will prevent your project from being delayed and your neighbors will appreciate the courtesy, even if the project doesn't change status.

## Major Alteration and Addition Permit Requirements

Permit applicants for major residential alteration or addition permits will need to meet the delay and notification requirements below before their permit can be issued. The requirements are intended to notify Recognized Organizations (such as neighborhood associations) and surrounding neighbors about the project.

### Delay

- **35-Day Delay:** Notifications to Recognized Organizations and neighbors must be sent 35 days prior to the date when the permit is issued. Notification can take place prior to permit application. In addition, you can have your plans reviewed and approved during that 35-day notification period. The permit will not be issued prior to the end of 35 days. Work on the project cannot start until the permit is issued.
- **No delay extension:** Unlike demolition permits, interested persons can't appeal to have the delay time extended on a major alteration/addition.

### Notification

- **Notification to Recognized Organizations:** At least 35 days prior to permit issuance, applicants must send an email notice regarding the permit application to Recognized Organizations whose boundaries include the site.
- **Door Hangers:** At least 35 days prior to permit issuance, the permit applicant must place door hangers on the properties abutting and across the street from the site of the project.

### Forms and documentation required before a major residential alteration/addition permit can be issued

- **Sent e-mail copy:** A copy of the sent email and a list of the names and email addresses of all Recognized Organizations that received the notification, along with the date the notifications were emailed, certified by the owner or owner's agent, must be submitted to BDS.
- **Door hanger copy:** The applicant must submit a copy of the door hanger and a list of addresses of all properties that received the notification along with the date the notifications were posted, certified by the owner or owner's agent.
- **Certification Regarding Asbestos and Lead-Based Paint:** The applicant must submit this form to BDS before the permit can be issued. By submitting the form, the applicant certifies that the area of proposed work has been tested by a certified contractor and either does not contain asbestos or lead-based paint, or that it does and the materials will be properly abated, handled and disposed of.

**Note:** The Door Hanger, Neighborhood Notice Certification and Certification Regarding Asbestos and Lead-Based Paint are available online at the BDS webpage for Major Residential Alteration and Additions - Overview and Criteria (<http://www.portlandoregon.gov/bds/67058>). Copies of these forms can also be obtained from the Development Services Center at 1900 SW 4th Ave. Call 503-823-7310 for hours or visit [www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds).