

BASIX Materials Index help notes

Single dwellings and multi-dwelling housing – floors

Floor types

Select all floor types used in your project from the options provided. Do not include driveways or other outdoor areas.

Floor type options:

- Concrete slab on ground
- Suspended floor above enclosed sub-floor
- Suspended floor above open sub-floor
- Floor above habitable rooms or mezzanine
- Suspended floor above garage

Floor area (m²)

The floor area in BASIX is measured from the inside of external walls, ignoring the area occupied by internal walls. Measure the area of each floor type. The diagram below shows an example of the areas to be measured for combination types.

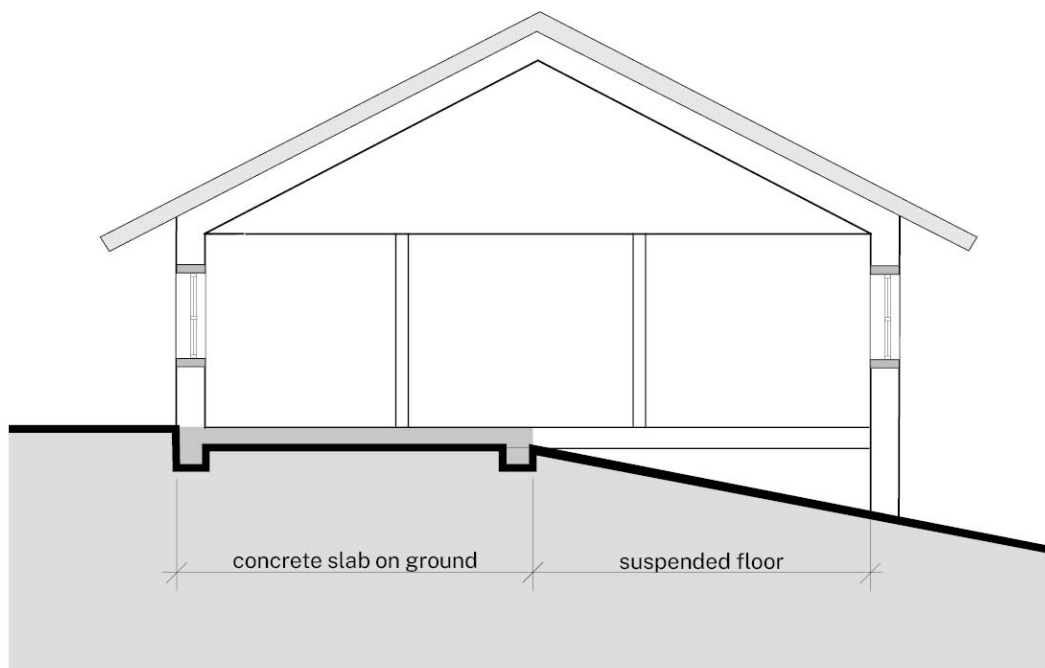


Figure 1. Measuring floor area – houses.

Floor low emissions

This field only applies for the floor type 'Concrete slab on ground' and for concrete garage floors.

Select appropriate low emissions concrete option from the drop-down menu provided if using low emission concrete or select 'none' if you are not using low emission concrete.

Low emission options:

- None
- 30% cement substitute
- 40% cement substitute
- 50% cement substitute
- 60% cement substitute
- 100% geopolymer cement replacement

Slab type

This field only applies for the floor type 'Concrete slab on ground'.

Select appropriate slab type option from the drop-down menu provided.

Slab type options:

- Conventional slab
- Waffle pod slab

Floor form of construction

This field applies for all floor types except 'Concrete slab on ground' and for garage floor.

Select the floor construction for each floor type from the drop-down menu provided.

Form of construction options – for all floor types except garage floor:

- Concrete – suspended
- Hard wood
- Treated softwood
- Plywood
- Particle board
- Fibre cement
- AAC panel (75 mm)
- AAC structural panel (150-200 mm)
- AAC structural panel (> 200 mm)
- Structural composite panel organic materials (150-200 mm)
- Structural composite panel organic materials (> 200 mm)

Form of construction options – for garage floor:

- Concrete slab on ground
- Concrete – suspended

- AAC structural panel (150-200 mm)
- AAC structural panel (> 200 mm)

Floor frame

This field is an option applies for all floor types except 'Concrete slab on ground'. If the floor construction type doesn't require a frame, select 'no frame'.

Select frame type for each floor type from the drop-down menus provided.

Frame options:

- No frame
- Timber - untreated softwood
- Timber - H2 treated softwood
- Laminated veneer lumber (LVL)
- Timber - hardwood predominant including glue laminated beams
- Light steel frame
- Heavy steel post and beam frame

Floor insulation

Select the type of insulation used for each floor type from the drop-down menus provided or select 'none' if no insulation is used.

Insulation options:

- Not specified
- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board

Reflective foil facing sub-floor

This field only applies for the floor types 'Suspended floor above enclosed subfloor' and 'Suspended floor above enclosed subfloor'.

Select from yes or no options.

Single dwellings and multi-dwelling housing - walls

External walls and external garage walls

External wall construction type

Select all construction types used in your project from the drop-down options provided. Use a different row for each construction type. External walls and external garage walls should be entered separately in the two tables provided.

Do not include internal wall areas. These are counted separately.

Construction type options – external walls:

- Brick veneer
- Cavity brick
- Framed (solid or reconstituted timber weatherboard) framed (fibre cement sheet or boards)
- Framed (metal clad)
- Concrete block/plasterboard
- Concrete panel/plasterboard
- AAC veneer
- AAC external, brick internal
- Reverse brick veneer
- Mudbrick or rammed earth
- Cement stabilized rammed earth (5%-10% cement) insulated concrete form (ICF)
- External insulated façade system (EIFS) hempcrete in situ on timber frame hempcrete blocks
- Insulated block with low cement content and reconstituted sawdust
- Block with low cement content and reconstituted sawdust/ plasterboard
- Cavity construction using blocks with low cement content and reconstituted sawdust

Construction type options – external garage walls

- Brick veneer
- Cavity brick
- Framed (solid or reconstituted timber weatherboard)
- Framed (fibre cement sheet or boards)
- Framed (metal clad)
- Concrete block/plasterboard
- Off form concrete
- Single skin autoclaved aerated concrete (AAC)
- AAC veneer
- AAC external, brick internal

- Reverse brick veneer
- Mudbrick or rammed earth
- Cement stabilized rammed earth (5%-10% cement)
- Insulated concrete form (ICF)
- External insulated façade system (EIFS)
- Hempcrete in situ on timber frame
- Block with low cement content and reconstituted sawdust
- Insulated block with low cement and reconstituted sawdust
- Block with low cement content and reconstituted sawdust/ plasterboard
- Cavity construction using blocks with low cement content and reconstituted sawdust
- Hempcrete blocks
- Single skin masonry
- Concrete panel/plasterboard

External wall area (m²)

The external wall area is measured by adding the areas of all external walls of the same type, excluding openings such as windows and doors. Measure to the outer perimeter of each wall type as shown below. Exclude external gable walls.

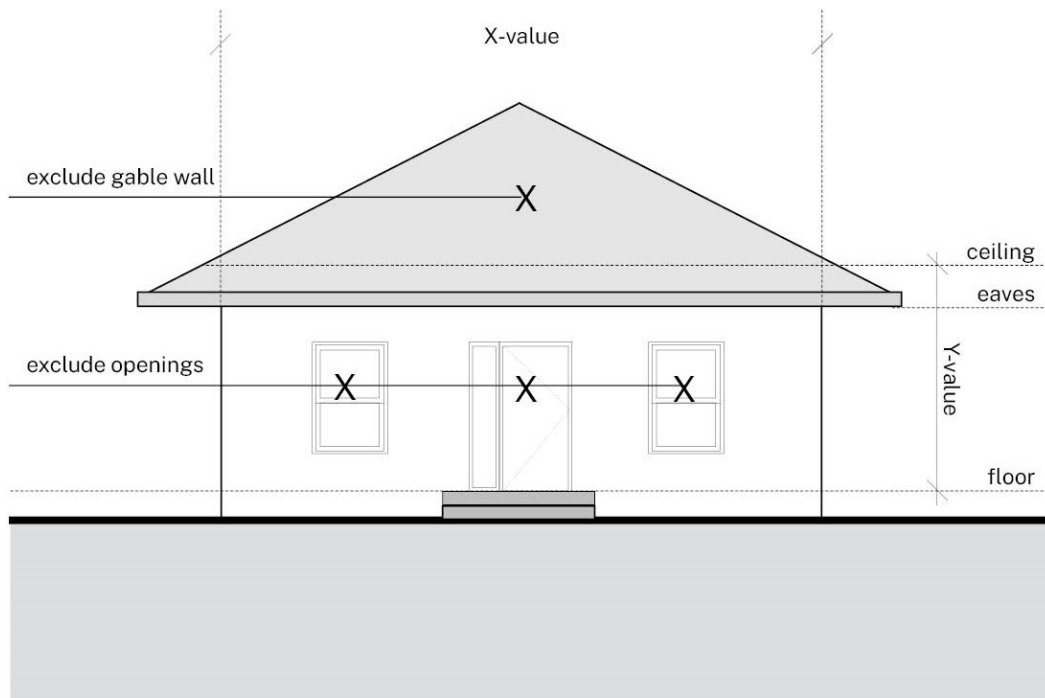


Figure 2. Measuring external wall area - houses.

For party walls between houses, include 50% of the party wall area per dwelling, as an external wall.

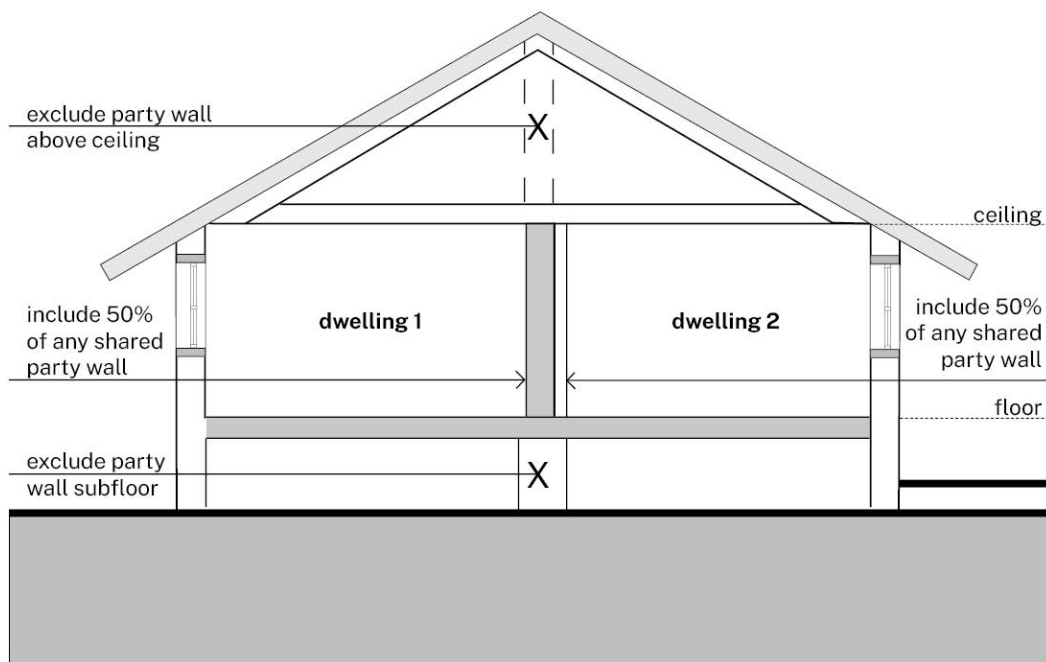


Figure 3. Measuring party wall area - houses.

External wall frame

Select the applicable wall frame type from the dropdown menu provided.

Frame options:

- No frame
- Timber - untreated softwood
- Timber - H2 treated softwood
- Laminated veneer lumber (LVL)
- Timber - hardwood predominant incl. glue laminated beams
- Light steel frame
- Heavy steel post and beam frame

External wall low emissions

This field only applies for insulated concrete form (ICF) and off form concrete walls.

Select appropriate low emissions concrete option from the drop-down menu provided if using low emission concrete or select 'none' if you are not using low emission concrete.

Low emission options:

- None
- 30% cement substitute

- 40% cement substitute
- 50% cement substitute
- 60% cement substitute
- 100% geopolymer cement replacement

External wall insulation

Select the appropriate external wall insulation type used in your project from the drop-down options provided.

Insulation options

- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board

External wall reflective foil

Select from yes or no options.

Internal walls

Do you have internal walls shared with garage?

Select from yes or no options. If you select yes, you will be asked to enter details of the internal walls shared with the garage.

Internal wall construction type

Select all internal wall construction types used in your project from the drop-down options provided. Use a different row for each construction type.

Construction type options

- Plasterboard
- Single skin masonry
- Cavity brick wall
- 75 mm AAC panel

- 200 mm AAC block
- Hempcrete
- Mud brick or rammed earth
- Block with low cement content and reconstituted sawdust

Internal wall area (m²)

The internal wall area is measured by adding the areas of all internal walls of the same type, excluding openings such as windows and doors. Measurements should be taken to the outer edges of the wall types ignoring skirting boards and cornices, as shown below.

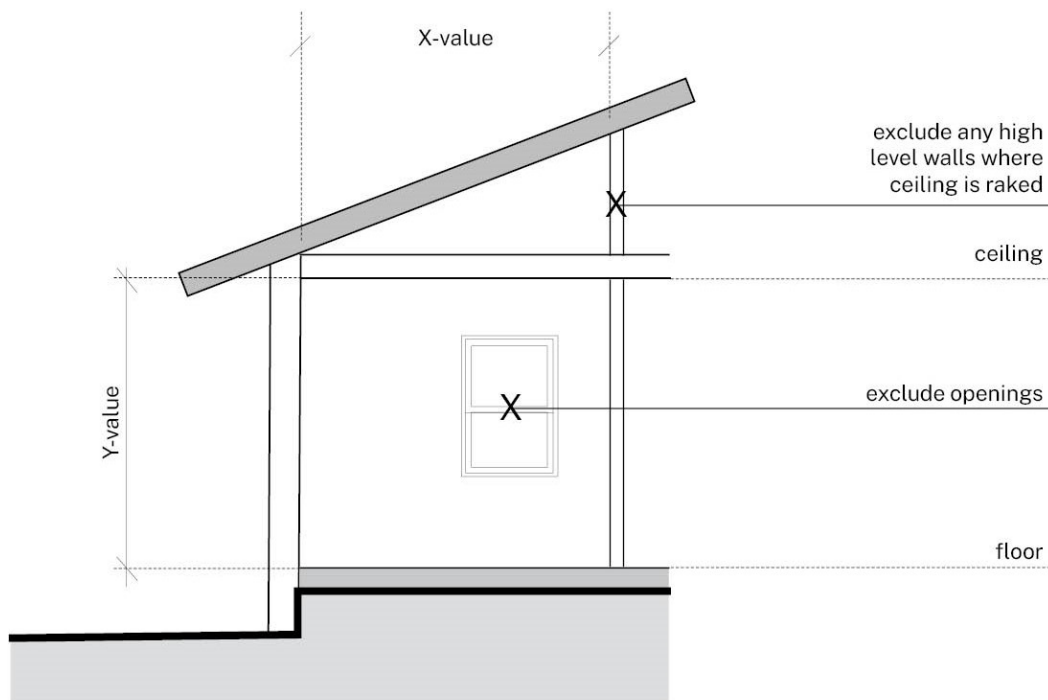


Figure 4. Measuring internal wall area - houses.

Internal wall frame

Select the applicable frame type for each internal wall type from the drop-down menus provided.

Frame options:

- No frame
- Timber - untreated softwood
- Timber - H2 treated softwood
- Laminated veneer lumber (LVL)
- Timber - hardwood predominant incl. glue laminated beams
- Light steel frame
- Heavy steel post and beam frame

Internal wall insulation

Select the applicable insulation type for each internal wall type from the drop-down menus provided.

Insulation options:

- Not specified
- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board

Single dwelling and multi-dwelling housing – ceiling/roof

Ceiling and roof type

Select all ceiling and roof types used in your project from the options provided.

Ceiling and roof type options

- Flat ceiling / pitched roof
- Raked ceiling / pitched or skillion roof
- Flat ceiling / flat roof

Ceiling and roof construction type

Select the construction type for each ceiling and roof type from the drop-down menus provided.

Construction type options:

- Framed - metal roof
- Framed - terracotta tiles
- Framed - concrete tiles
- Concrete - plasterboard internal
- Concrete - bare internal
- Structural insulated panel (SIP)

Ceiling and roof area (m²)

Roof area is measured to the outside of the gutters, excluding parapets and trafficable roof terraces, and measured in the horizontal plane. Do not take allowances for pitched or skillion roof slopes.

Ceiling and roof frame

Select the frame for each ceiling and roof type from the drop-down menus provided.

Frame options:

- No frame
- Timber - untreated softwood
- Timber - H2 treated softwood
- Laminated veneer lumber (LVL)
- Timber - hardwood predominant incl. glue laminated beams
- Light steel frame
- Heavy steel post and beam frame

Roof insulation

Select the appropriate roof insulation type used in your project from the drop-down menus provided.

Roof insulation options

- Not specified
- None
- Foil/sarking
- Foil backed blanket

Ceiling insulation

Select the appropriate ceiling insulation type used in your project from the drop-down options provided.

Ceiling insulation options:

- Not specified
- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board
- Foil backed blanket

Single dwellings and multi- dwelling housing – glazing

Measure the area of the glazing from the outside edges of the frame (include the frame and glass). The total area by glazing type should match the total area by frame type.

Glazing area by glazing type

Provide the area of glazing used in your project by glazing types listed. Measure the area of the glazing from the outside edges of the frame (include the frame and glass). The total area by glazing type should match the total area by frame type.

Glazing types:

- Single glazed
- Double glazed
- Triple glazed

Glazing area by frame type

Provide the area of glazing used in your project by frame types listed.

- Aluminium
- Timber
- UPVC
- Steel
- Composite

Residential flat buildings – floors

Floor types

Select all floor types used in your project from the options provided. Do not include driveways or other outdoor areas.

Floor type options:

- Concrete slab on ground
- Suspended floor above enclosed sub-floor
- Suspended floor above open sub-floor
- Floor above habitable rooms
- Suspended floor above garage
- Garage floors

Floor area (m²)

The floor area is measured from the inside of external walls, ignoring the area occupied by internal walls. Measure the area of each floor type separately. The diagram below shows an example of the areas to be measured for combination types.

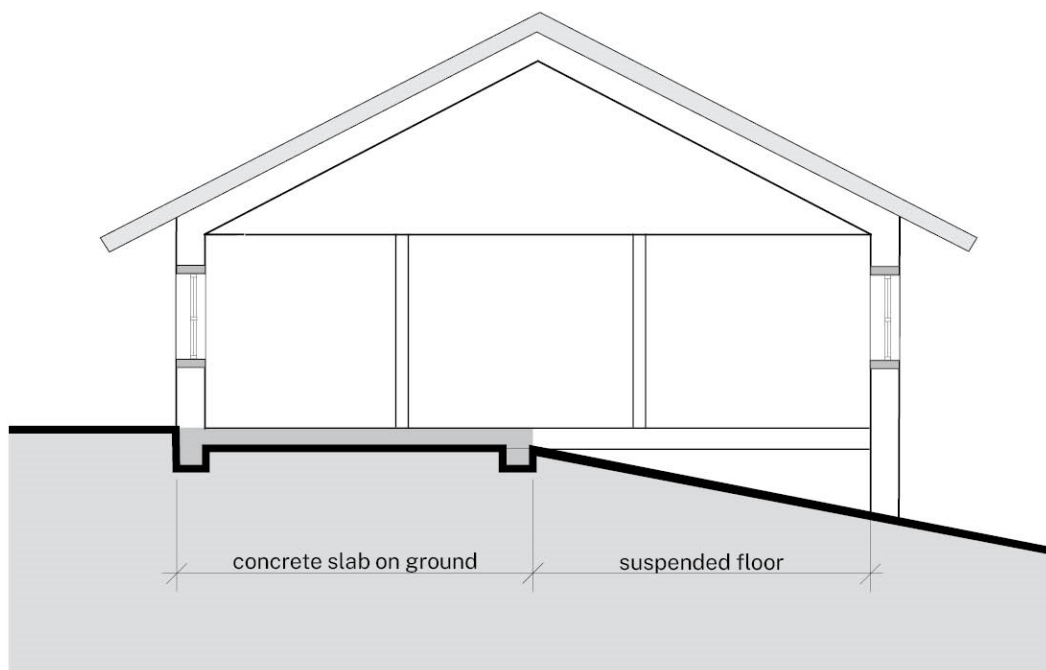


Figure 5. Measuring floor area – residential flat buildings

Floor form of construction

This field applies for all floor types except 'Concrete slab on ground'.

Select the form of construction for each floor type from the drop-down menu provided.

Form of construction options:

- Suspended concrete slab
- Timber framed with timber particle board
- Timber framed with plywood sheeting
- Timber framed with fibre cement sheeting
- Metal framed with timber particle board
- Metal framed with plywood sheeting
- metal framed with fibre cement sheeting
- timber panel (CLT, glue laminated)
- AAC panel on metal frame (75 mm)
- AAC panel on timber frame (75mm)
- AAC structural panel (150-200 mm)
- AAC structural panel (> 200 mm)
- heavy steel post and beam frame: suspended concrete slab

Form of construction options – garage floor:

- Concrete slab on ground
- Suspended concrete slab

Floor low emissions

Select appropriate low emissions concrete options from the drop-down menus provided only when using low emission concrete or select 'none'.

Low emissions options:

- None
- 30% cement substitute
- 40% cement substitute
- 50% cement substitute
- 60% cement substitute
- 100% geopolymer cement replacement

Floor insulation

Select the type of insulation used for each floor type from the drop-down menus provided or select 'none' if no insulation is used.

Insulation options:

- Not specified
- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board

Residential flat buildings – walls

External wall types

External wall construction type

Select Construction types used in your project from the drop-down options provided. Use a different row for each construction type. Do not include internal wall areas which are counted separately.

Construction type options:

- Cavity brick
- Framed (fibre cement sheet or boards)
- Framed (metal clad)
- Concrete block/plasterboard
- Concrete panel/plasterboard
- Off form concrete
- Single skinned autoclaved aerated concrete (AAC)
- AAC veneer
- AAC external, brick internal
- Reverse brick veneer
- Insulated concrete form (ICF)
- Hempcrete blocks
- Block with low cement content and reconstituted sawdust

External wall area

The external wall area is measured by adding the areas of all external walls of the same type, excluding openings such as windows and doors.

Measure to the outer perimeter of each wall type as shown below.

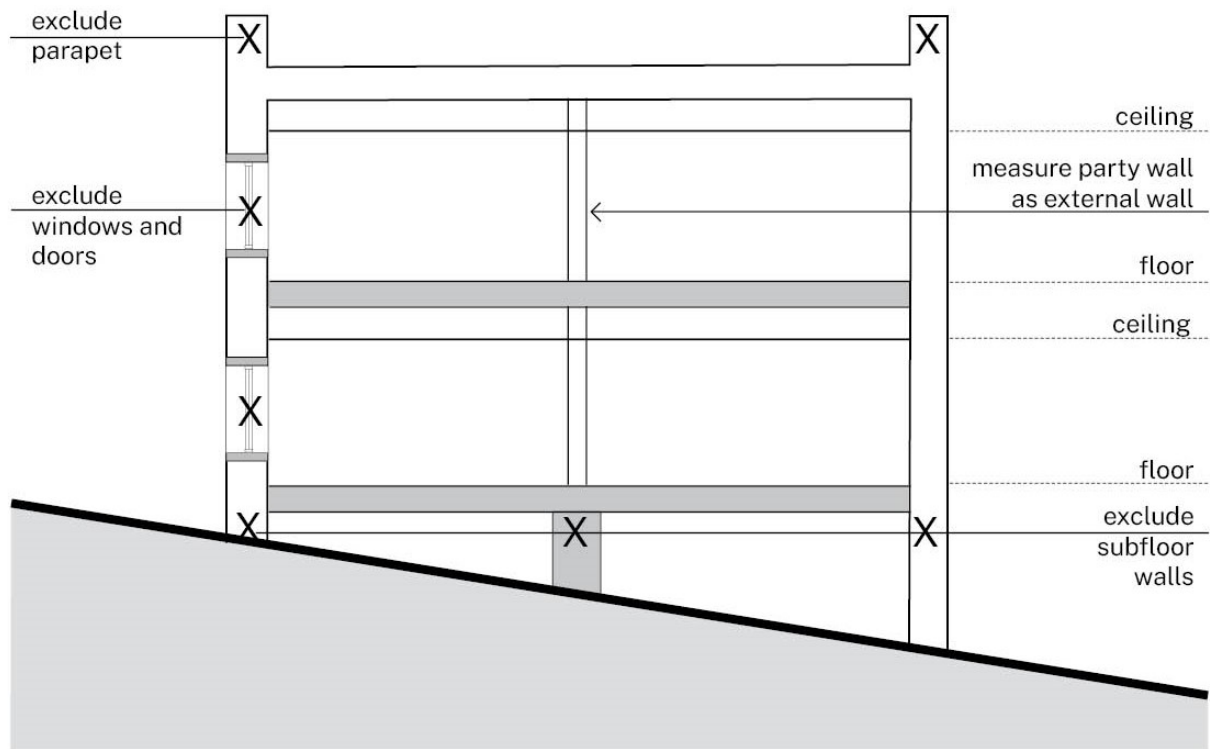


Figure 6. Measuring external wall area - residential flat buildings.

External wall frame

Select the applicable wall frame type from the dropdown menu provided.

Frame options:

- no frame
- timber - untreated softwood
- timber - H2 treated softwood
- laminated veneer lumber (LVL)
- timber - hardwood predominant incl. glue laminated beams
- light steel frame
- heavy steel post and beam frame

External wall low emissions

If using concrete, select the low emissions concrete option used. If no low emissions concrete option is used, select 'none'.

Low emissions options:

- None
- 30% cement substitute

- 40% cement substitute
- 50% cement substitute
- 60% cement substitute
- 100% geopolymer cement replacement

External walls insulation

Select the appropriate external wall insulation type used in your project from the drop-down options provided.

Insulation options:

- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board

Internal wall types

Internal walls construction type

Select all internal wall construction types used in your project from the drop-down options provided. Use a different row for each construction type.

Construction type options:

- Plasterboard
- Single skin masonry
- Cavity brick wall
- 75 mm AAC panel
- 200 mm AAC block
- Hempcrete
- Mud brick or rammed earth
- Block with low cement content and reconstituted sawdust

Internal walls area

The internal wall area is measured by adding the areas of all internal walls of the same type, excluding openings such as windows and doors.

Measurements should be taken to the outer edges of the wall types ignoring skirting boards and cornices, as shown below.

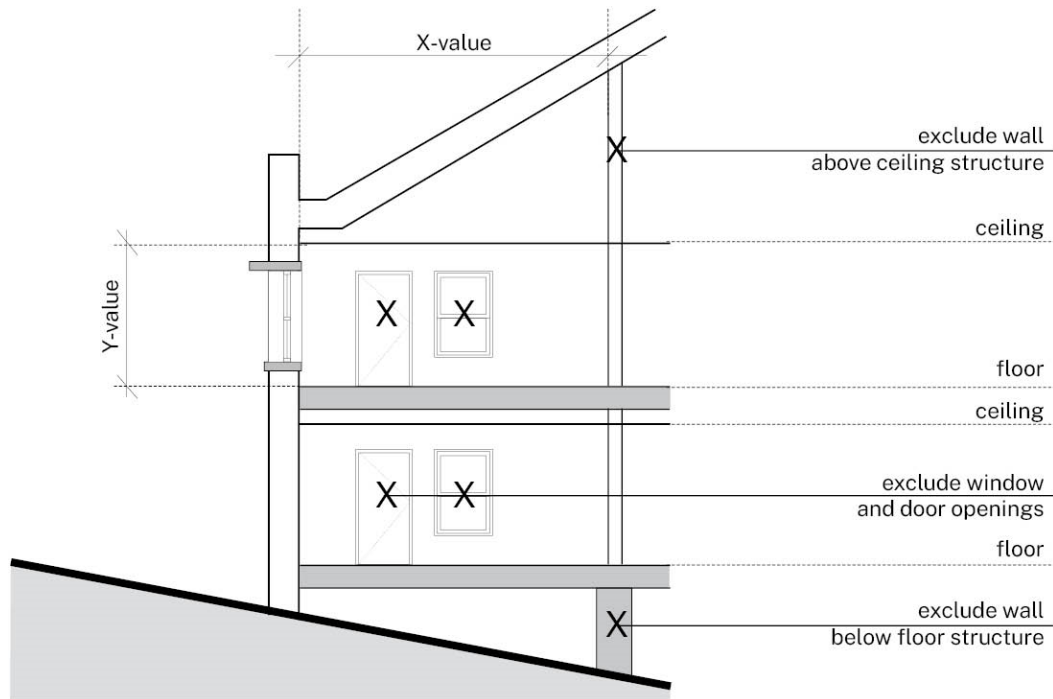


Figure 7. Measuring internal wall area - residential flat buildings.

Internal walls frame

Select the applicable frame type for each internal wall type from the drop-down menu provided.

Frame options:

- No frame
- Timber - untreated softwood
- Timber - H2 treated softwood
- Laminated veneer lumber (LVL)
- Timber - hardwood predominant incl. glue laminated beams
- Light steel frame
- Heavy steel post and beam frame

Internal walls insulation

Select the applicable insulation type for each internal wall type from the drop-down menus provided.

Insulation options:

- Not specified
- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board

Reinforced concrete frame / columns

Building has reinforced concrete frame/columns

Select Yes or No.

Reinforced concrete volume (m³)

Provide the volume for concrete structure of the building excluding concrete foundations

Reinforced concrete low emissions

Select the appropriate response to whether low emission cement is to be used. If no low emissions concrete option is used, select 'none'.

Low emissions options:

- None
- 30% cement substitute
- 40% cement substitute
- 50% cement substitute
- 60% cement substitute
- 100% geopolymers cement replacement

Residential flat buildings – ceiling/roof

Ceiling and roof type

Select all ceiling and roof types used in your project from the options provided. Use a different row for each ceiling and roof type.

Ceiling and roof type options:

- Framed - metal roof
- Framed - terracotta tiles
- Framed - concrete tiles
- Concrete - plasterboard internal
- Concrete - bare internal
- Structural insulated panel (SIP)

Ceiling and roof area (m²)

Roof area is measured to the outside of the gutters, excluding parapets and trafficable roof terraces, and measured in the horizontal plane. Do not take allowances for pitched or skillion roof slopes.

Ceiling and roof frame

Select the frame for each ceiling and roof type from the drop-down menus provided.

Frame options:

- No frame
- Timber – untreated softwood
- Timber – H2 treated softwood
- Laminated veneer lumber (LVL)
- Timber - hardwood predominant incl. glue laminated beams
- Light steel frame
- Heavy steel post and beam frame

Roof insulation

Select the appropriate roof insulation type used in your project from the drop-down menus provided.

Roof insulation options

- Not specified
- None
- Foil/sarking
- Foil backed blanket

Ceiling insulation

Select the appropriate ceiling insulation type used in your project from the drop-down options provided.

Ceiling insulation options:

- Not specified
- None
- Fibreglass batts or roll
- Rockwool batts, roll or pump-in
- Expanding foam
- Polystyrene
- Polyurethane
- Hemp-lime insulation
- Polyester
- Polyester minimum 85% post-consumer recycled content
- Blow in cellulose with fire retardant
- Foil-foam composite board
- Foil backed blanket

Residential flat buildings – glazing

Measure the area of the glazing from the outside edges of the frame (include the frame and glass). The total area by glazing type should match the total area by frame type.

Glazing area by glazing type

Provide the area of glazing used in your project by glazing types listed. Measure the area of the glazing from the outside edges of the frame (include the frame and glass). The total area by glazing type should match the total area by frame type.

- Single Glazed
- Double Glazed
- Triple Glazed

Glazing area by frame type

Provide the area of glazing used in your project by frame types listed.

- Aluminium
- Timber
- UPVC
- Steel
- Composite

Mixed use buildings

If there are carparks or common areas in a building that are shared between residential and non-residential parts of the development, only the residential fraction of these areas should be entered into the BASIX Materials Index. This residential fraction should be calculated as follows:

For shared carparks, use the fraction of car spaces that are residential.

For other shared common areas, use the fraction of total floor space in the building that is residential.

For example, if the carpark for a mixed use building contains 30 residential car spaces and 20 non-residential car spaces (a total of 50 car spaces), the fraction of the carpark to count in the Materials Index is 0.6 ($= 30/(30+20)$).