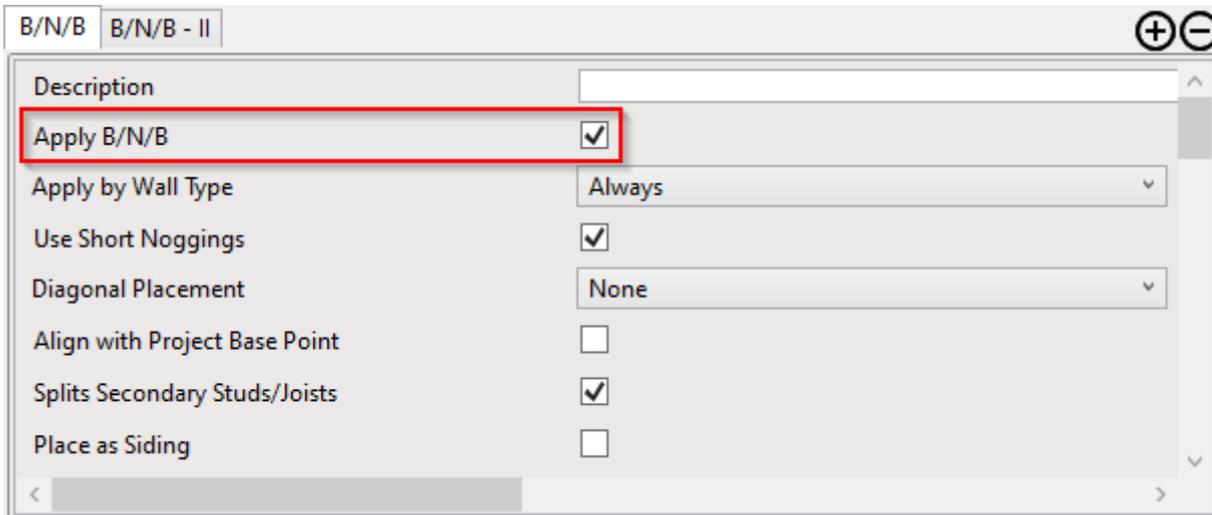


FRAMING CONFIGURATION – Blocking/Nogging

Modified on: Mon, 11 Jan, 2021 at 8:48 PM

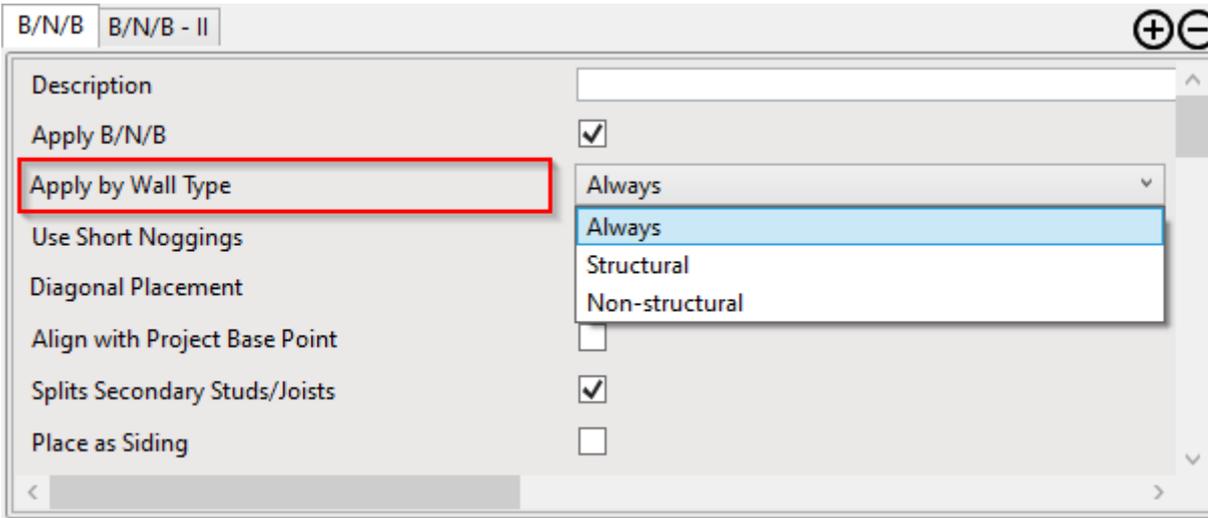
Apply B/N/B (Bridging/Nogging/Blocking)



Property	Value
Description	
Apply B/N/B	<input checked="" type="checkbox"/>
Apply by Wall Type	Always
Use Short Noggings	<input checked="" type="checkbox"/>
Diagonal Placement	None
Align with Project Base Point	<input type="checkbox"/>
Splits Secondary Studs/Joists	<input checked="" type="checkbox"/>
Place as Siding	<input type="checkbox"/>

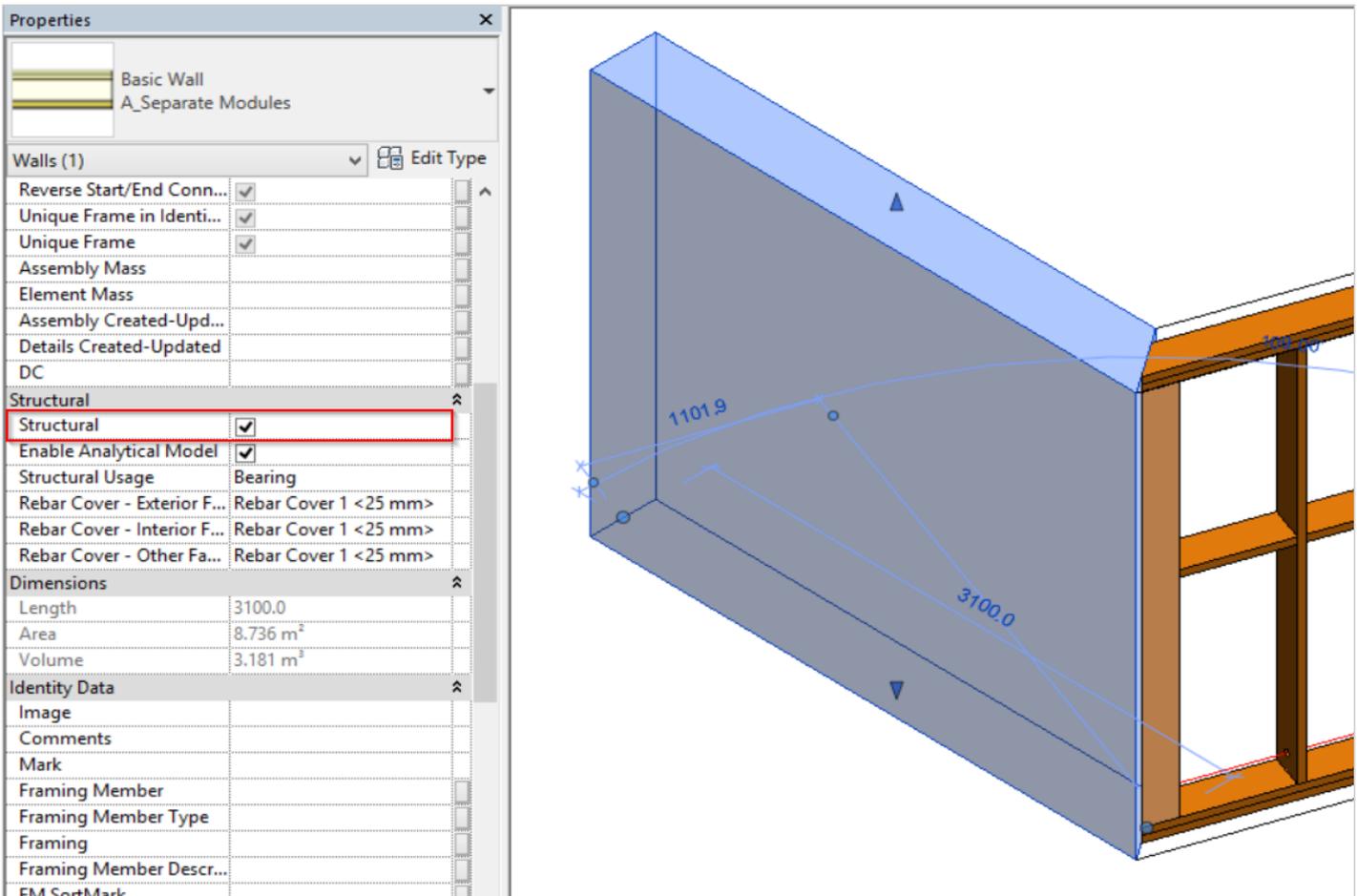
Apply B/N/B (Bridging/Nogging/Blocking) – choose whether or not the rules listed below should be applied to the frame.

Apply by Wall Type

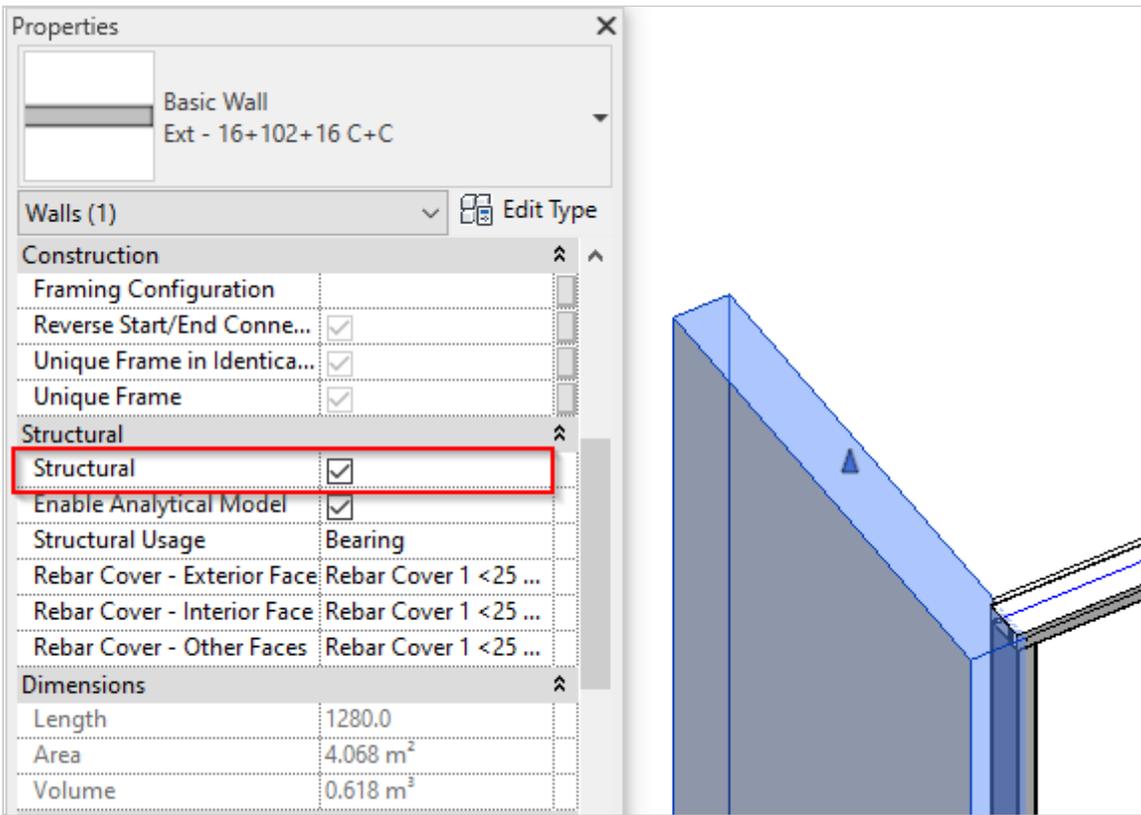


Apply by Wall Type – option to add Blocking/Nogging/Bridging only for **Structural**, **Non-structural**, or **Always** selected walls in the project.

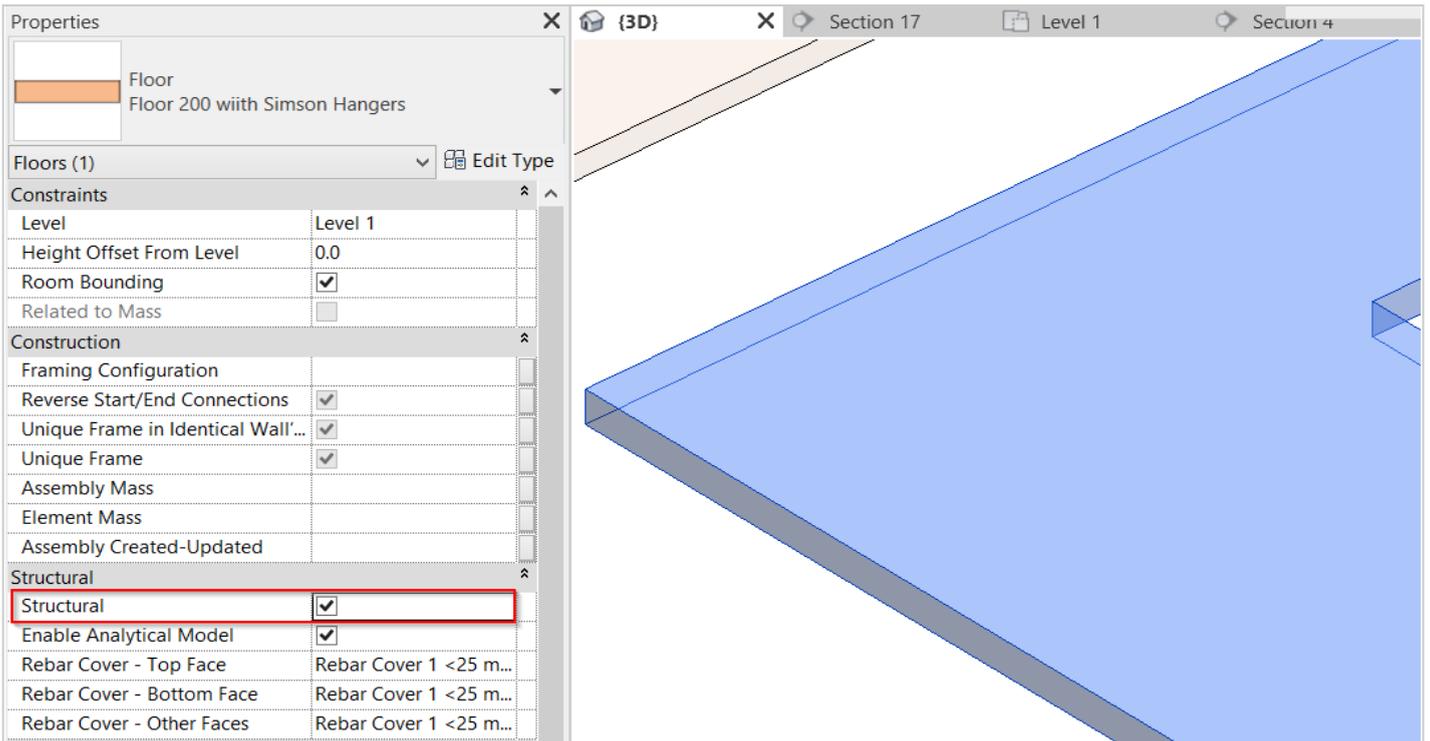
Wall+ will pay attention into instance **Structural** wall parameter and will add blocking/nogging accordingly:



Example with wall which will be used for metal frame:



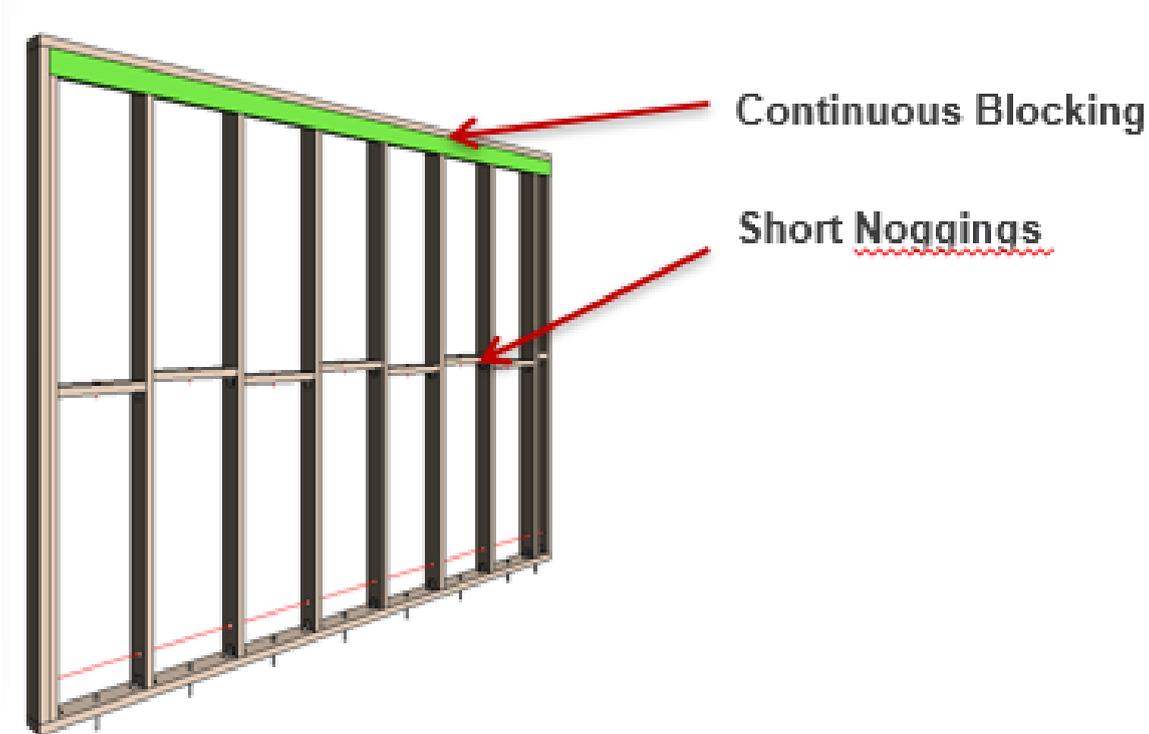
Example with floor which will be used for framing:



Use Short Noggings

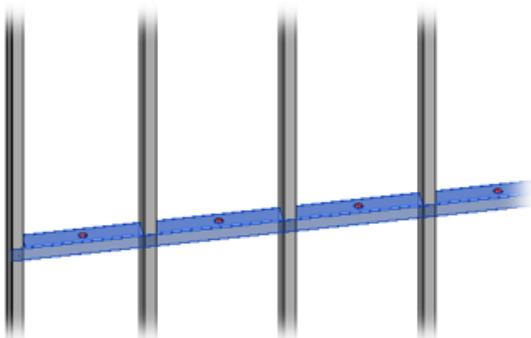
B/N/B		B/N/B - II		+ -	
Description					
Apply B/N/B	<input checked="" type="checkbox"/>				
Apply by Wall Type	Always				
Use Short Noggings	<input checked="" type="checkbox"/>				
Diagonal Placement	None				
Align with Project Base Point	<input type="checkbox"/>				
Splits Secondary Studs/Joists	<input checked="" type="checkbox"/>				
Place as Siding	<input type="checkbox"/>				

Use Short Noggings – select if noggings have to split between the studs.

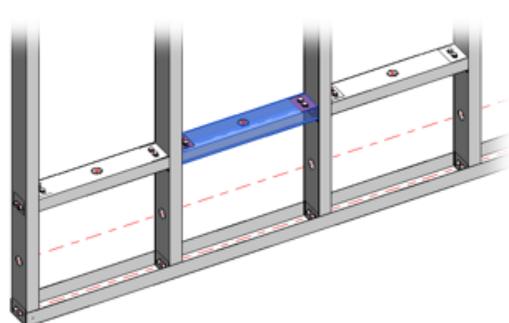


Example with metal wall frame:

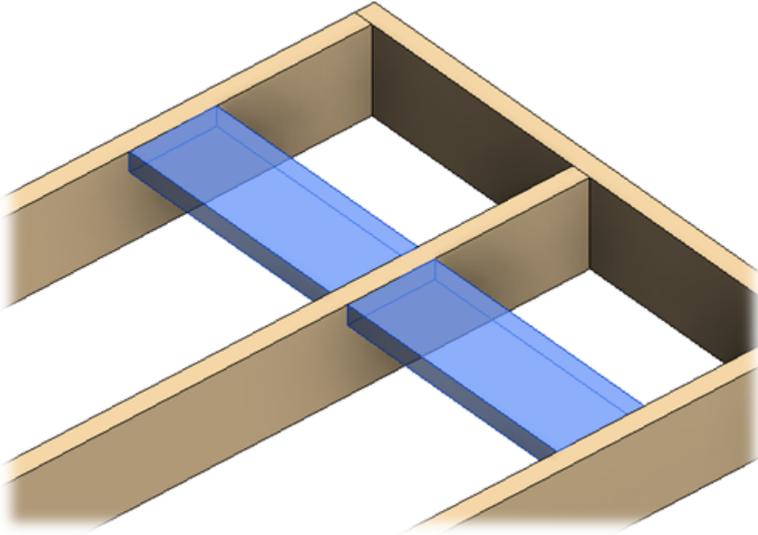
Unticked



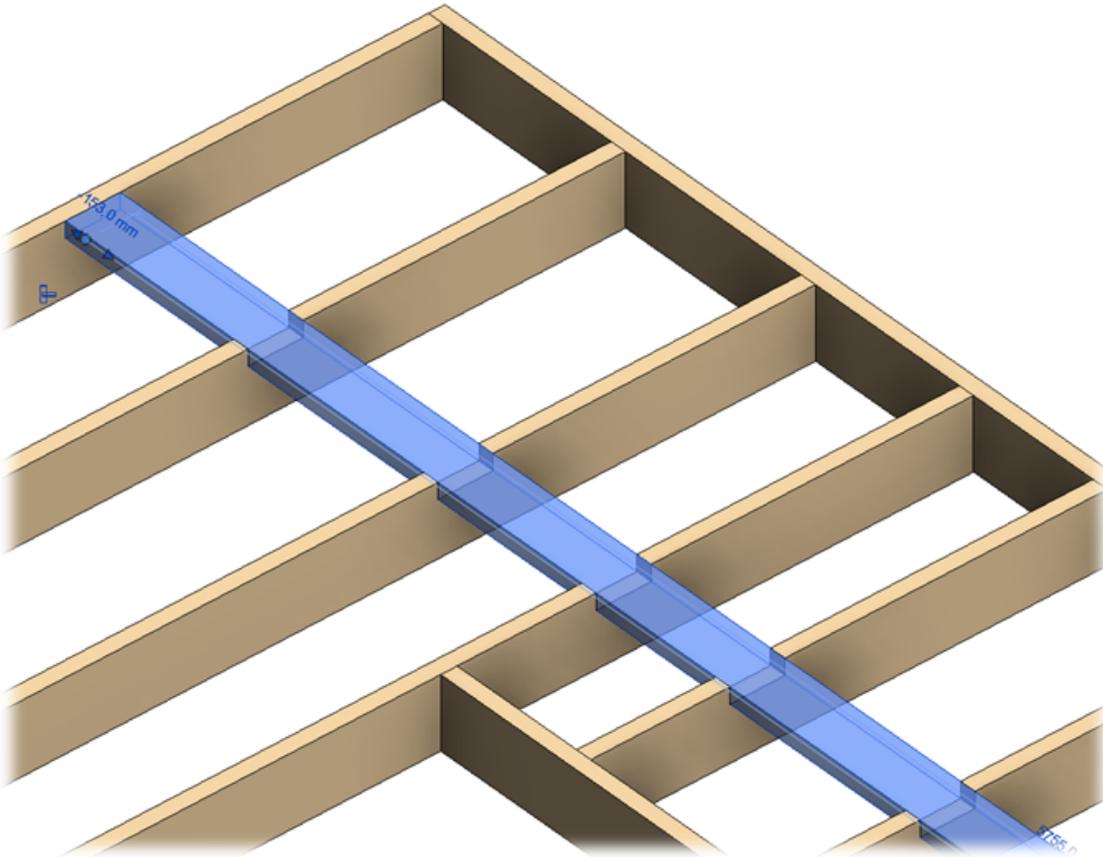
Ticked



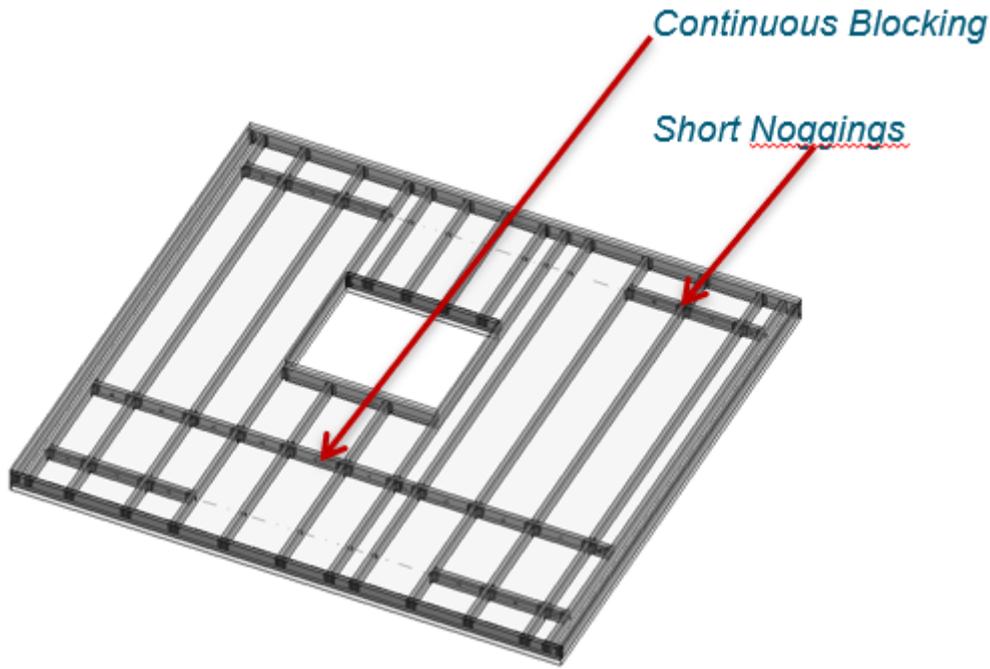
Example with wood floor: Use Short Noggings is ON:



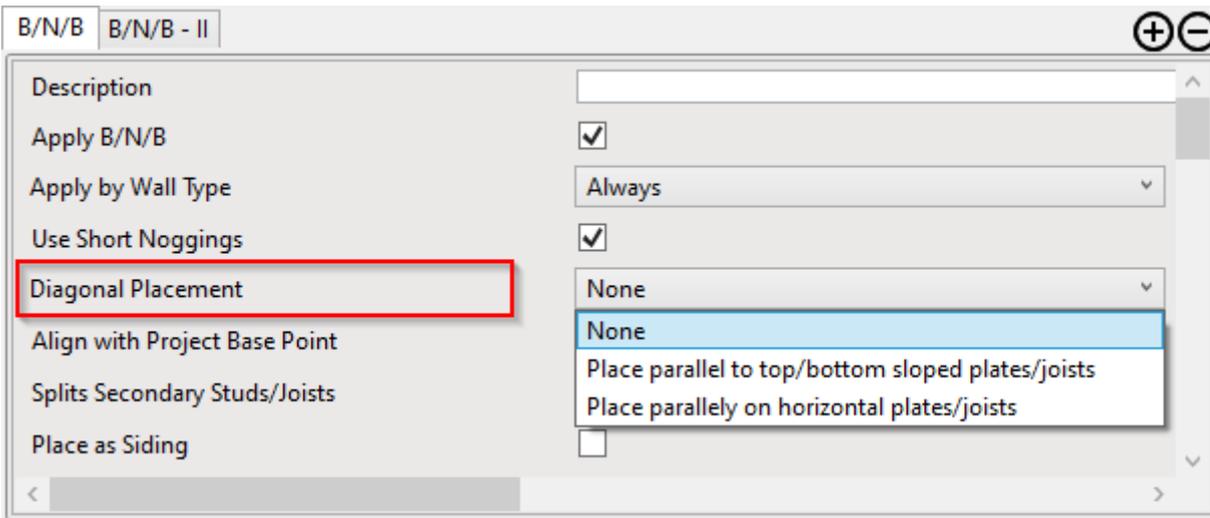
Example: Use Short Noggings is OFF:



Example with metal floor:



Diagonal Placement

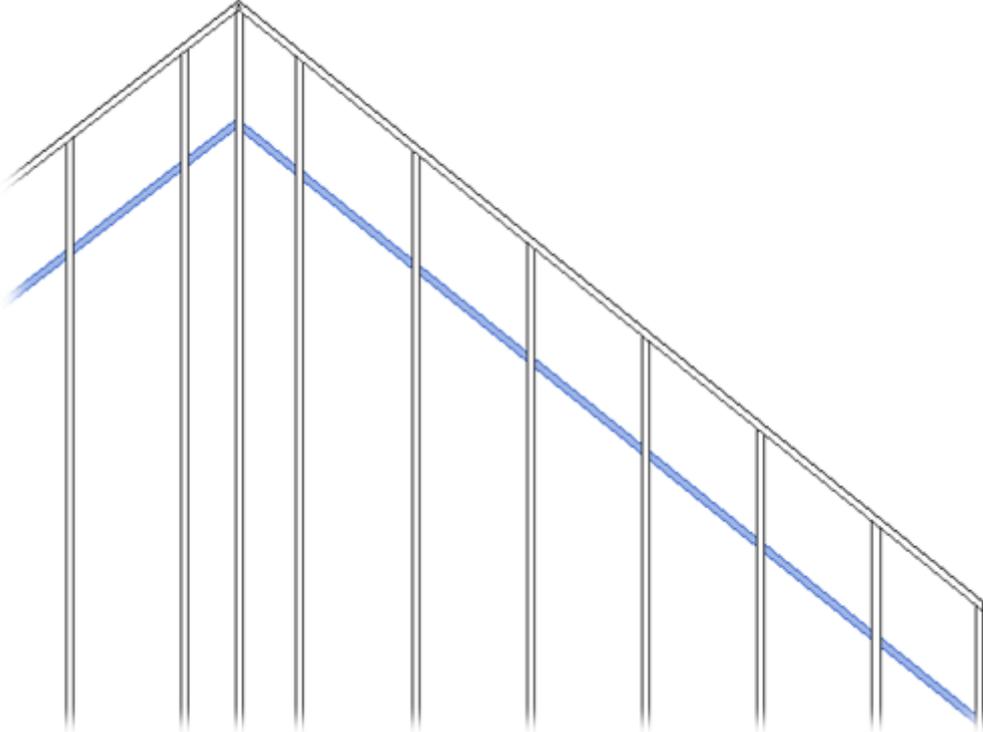


Diagonal Placement – places blocking/nogging/bridging parallel to top/bottom sloped plates or parallel on horizontal plates.

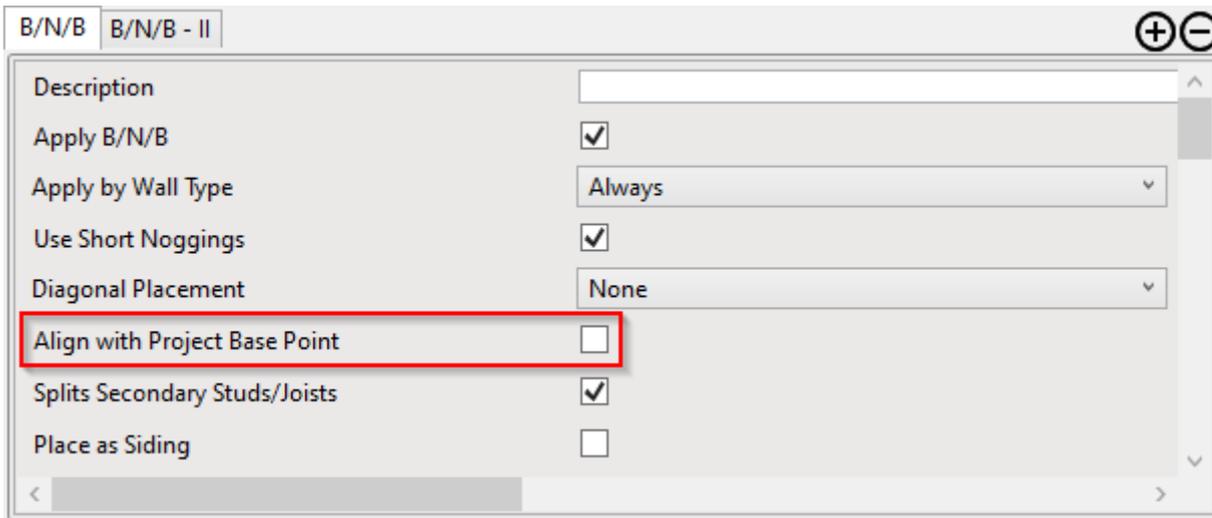
Example: Blocking is placed parallel to top sloped plate:



Example: Blocking is placed parallel to top sloped rim joist:



Align with Project Base Point

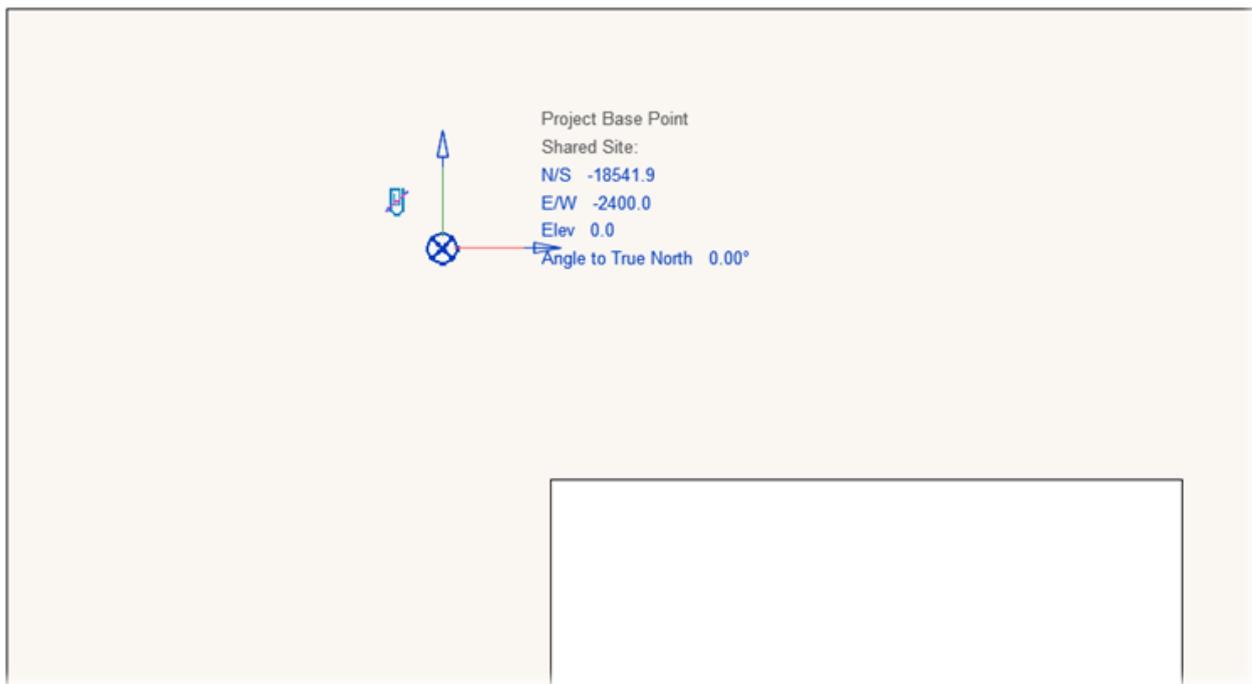


B/N/B B/N/B - II

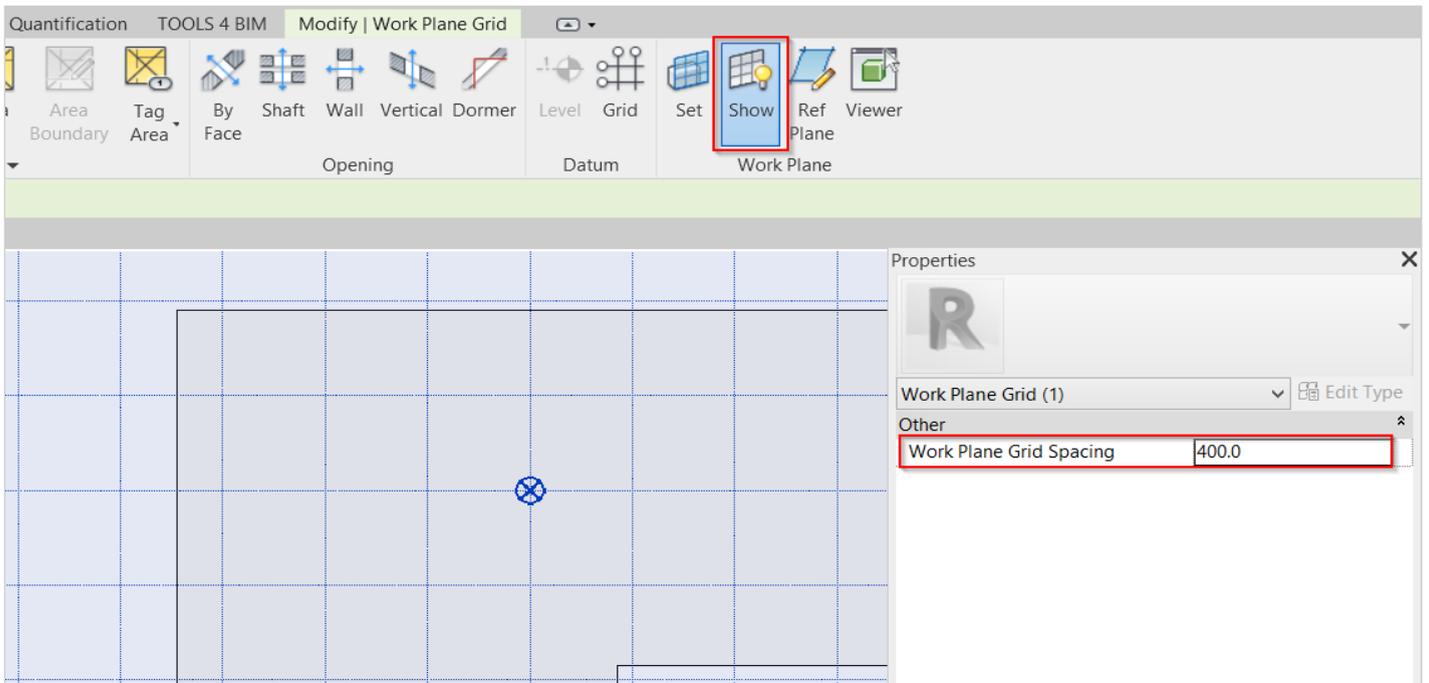
Description	
Apply B/N/B	<input checked="" type="checkbox"/>
Apply by Wall Type	Always
Use Short Noggings	<input checked="" type="checkbox"/>
Diagonal Placement	None
Align with Project Base Point	<input type="checkbox"/>
Splits Secondary Studs/Joists	<input checked="" type="checkbox"/>
Place as Siding	<input type="checkbox"/>

Align with Project Base Point – allows positioning bridging elements not only in relation to each other but according to Revit gridlines.

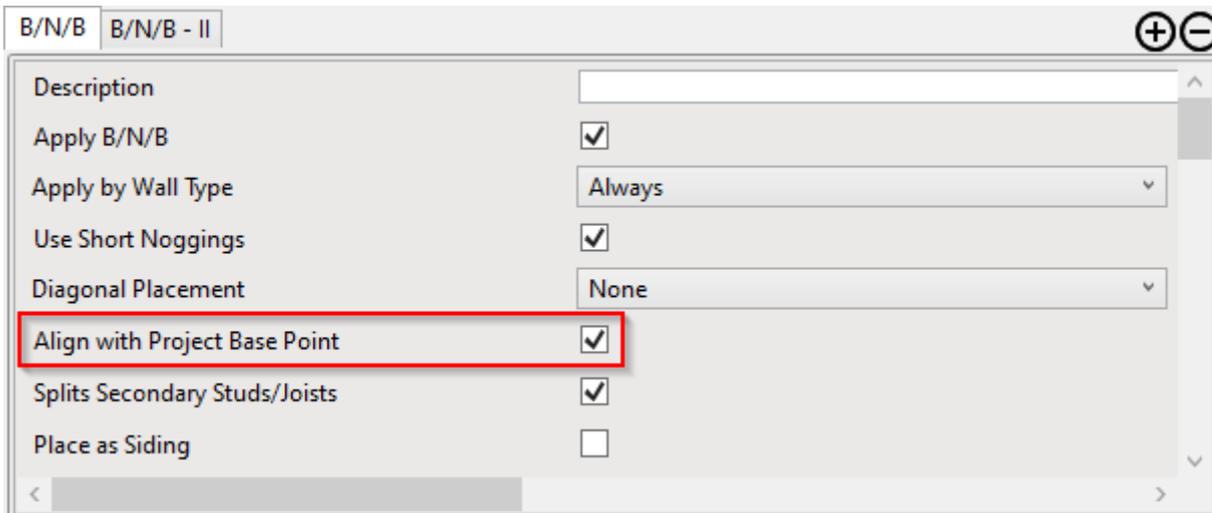
First step – unclip the state of the Revit **Project Base Point** and move it to the needed position:



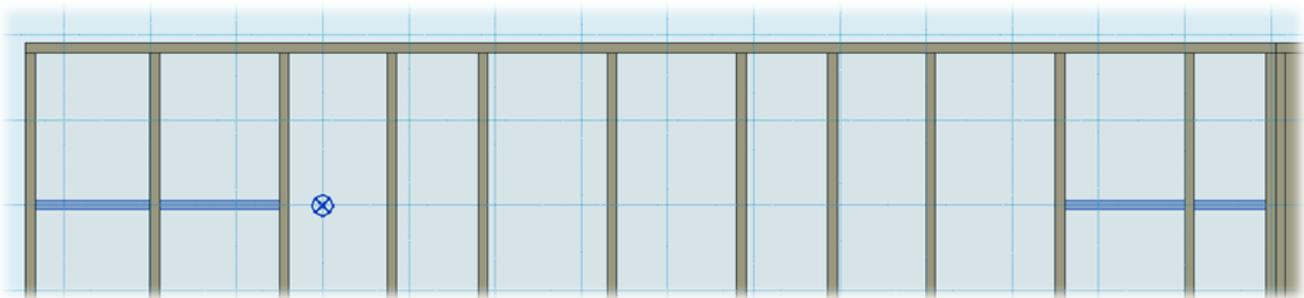
For more convenience, switch on Revit **Work Plane** and move it to the **Project Base Point**. It will help you to understand if the studs or joists are created in the right position:



Turn on **Align with Project Base Point** in the **Framing Configuration** dialog:



Frame walls. First bridging/nogging/blocking will be aligned with the project base point:



In case you need to relocate the frame, just move the **Project Base Point** to the new position and update the frame.

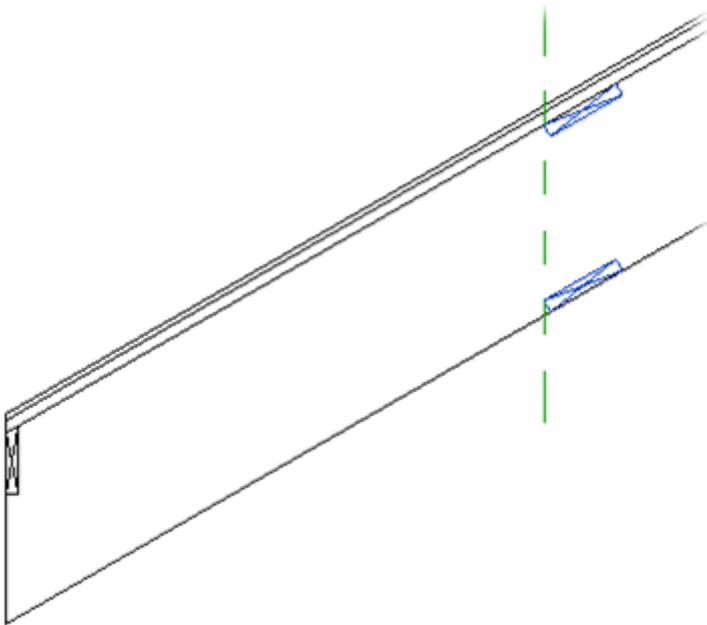
External/Internal is

(in Roof+, Roof+M)

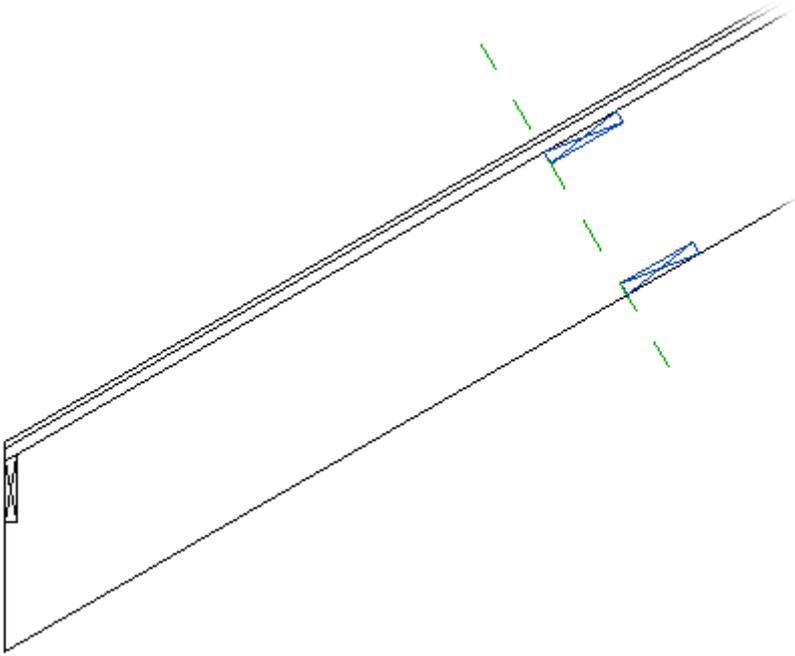
J/R/B	J/R/B - II	J/R/B - III	J/R/B - IV	J/R/B - V	J/R/B - VI	J/R/B - VII	J/R/B - VIII	
Description								
Apply J/R/B								<input checked="" type="checkbox"/>
Apply by Roof Type								Always
Use Short Noggings								<input type="checkbox"/>
Diagonal Placement								None
Align with Project Base Point								<input type="checkbox"/>
External/Internal is								Vertical
Splits Secondary Studs/Joists								Diagonal
Place as Siding								Vertical
								as Previous

External/Internal is – controls bridging position in the roof. Works when bridging **Position** (under **Custom Join**) = **External** or **Internal**.

Example, **Vertical** option is selected:



Example, **Diagonal** option is selected:



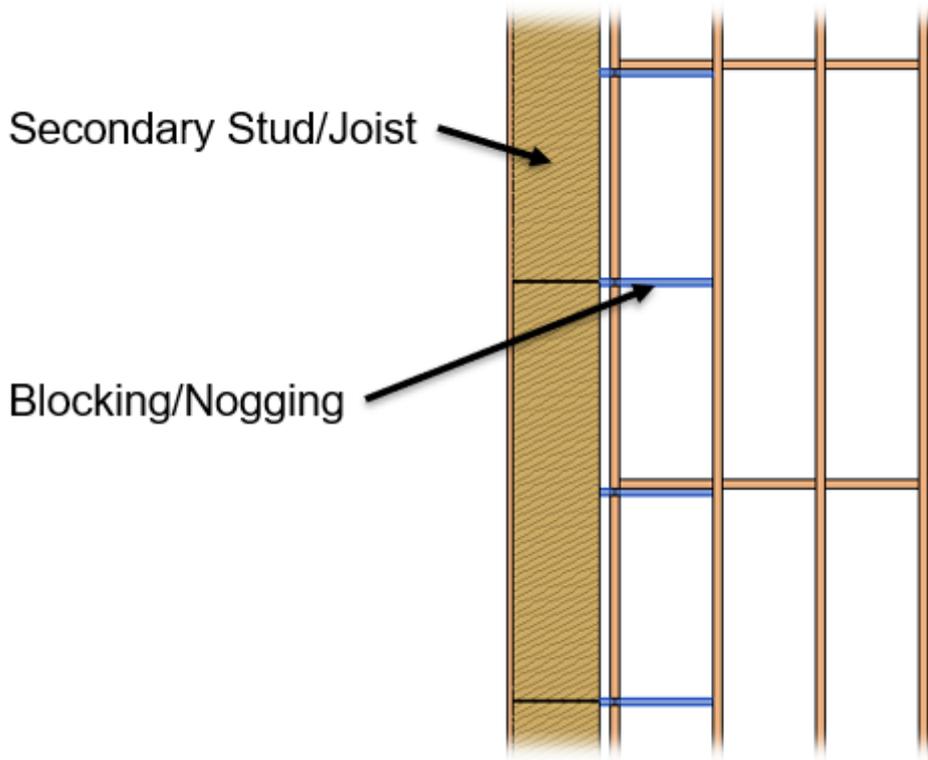
Splits Secondary Studs/Joists

B/N/B B/N/B - II ⊕ ⊖

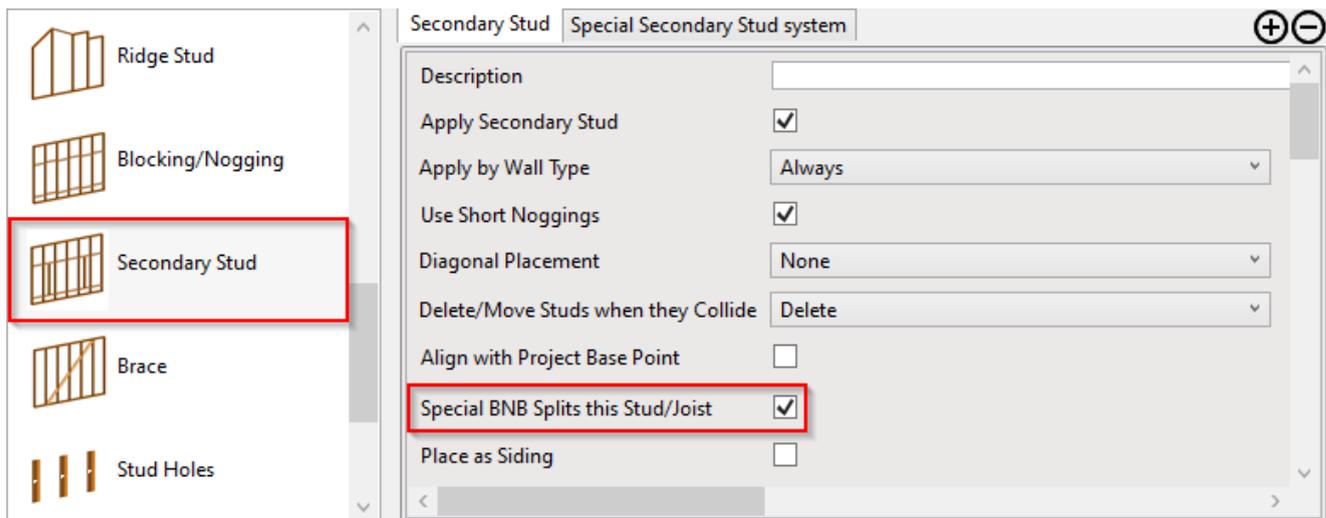
Description	<input type="text"/>
Apply B/N/B	<input checked="" type="checkbox"/>
Apply by Wall Type	Always ▾
Use Short Noggings	<input checked="" type="checkbox"/>
Diagonal Placement	None ▾
Align with Project Base Point	<input type="checkbox"/>
Splits Secondary Studs/Joists	<input checked="" type="checkbox"/>
Place as Siding	<input type="checkbox"/>

Splits Secondary Studs/Joists – if ticked current bridging/nogging/blocking will split secondary stud/joist.

Example, every second blocking splits OSB which is created as secondary stud:



Example, in such case OSB is created as secondary stud and **Special BNB Splits this Stud/Joist** is selected:



Blocking which splits has to have parameter **Split Part**.

The screenshot displays a 2D framing configuration in AGACAD. On the left, a vertical wall is shown with a hatched texture. To its right, a series of vertical studs are spaced at 2583.8 mm. A horizontal member, identified as an M_RFSE Side Rafter LMBR 45x135, is positioned between two studs. The distance from the wall to the center of the rafter is 1183.0 mm. The Properties panel on the right provides detailed settings for this member.

Properties	
M_RFSE Side Rafter LMBR 45x135	
Structural Framing (Other) (1) Edit Type	
DC	
Details Created-Updated	
Graphics	
Axis Visible_T	<input type="checkbox"/>
Even Number	<input checked="" type="checkbox"/>
HSCFT_VR	<input checked="" type="checkbox"/>
Solid Visible	<input checked="" type="checkbox"/>
Split Part	<input checked="" type="checkbox"/>
Symbolic Section_Build...	<input checked="" type="checkbox"/>
Structural	
Stick Symbol Location	Center of Geometry
Start Connection	None
End Connection	None
Cut Length	1167.0
Structural Usage	Other
Enable Analytical Model	<input checked="" type="checkbox"/>
Dimensions	
#d_True	450.0
HP	450.0
HSCFT	75.0
HSCFT_E	135.0
HSCFT_S	75.0

Custom Join

B/N/B
B/N/B - II
+
-

Custom Join

Configuration

Predefined Layout Name: *Nogging* Save to Database Duplicate Rename Delete

Select Layout from Database Configuration: -- Select --

New Item Remove Item Move Up Move Down

	X-Position	Count	Type	Define Depth...	Rotate 90°	Rotate 180°	Flip Facing	Spacing	Position
1	Center	1	M_WF Plate : LMBR 45x120	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0 mm	Center

Symbolic Preview

Custom Join – is a multi-functional dialog where user can define rules for joins/studs including size, count, position, rotation, spacing, alignment etc. All these rules can be saved and used in other framing configurations or shared with other users. This type of dialog is used frequently in our products, so here you can find [Custom Join detailed description >>](https://agacad.freshdesk.com/support/solutions/articles/44001990031-custom-join) (<https://agacad.freshdesk.com/support/solutions/articles/44001990031-custom-join>)

Rotate by Slope

(in Floor+, Floor+M, Roof+, Roof+M)

B/N/B
B/N/B - II
+
-

Rotate by Slope

Array 1

Array 1 Array from Base

Bottom Plate Support (Auto)

Apply Offset by Slope

Offset by Center

Offset from Base Face 1000

Additional Offset by Slope None

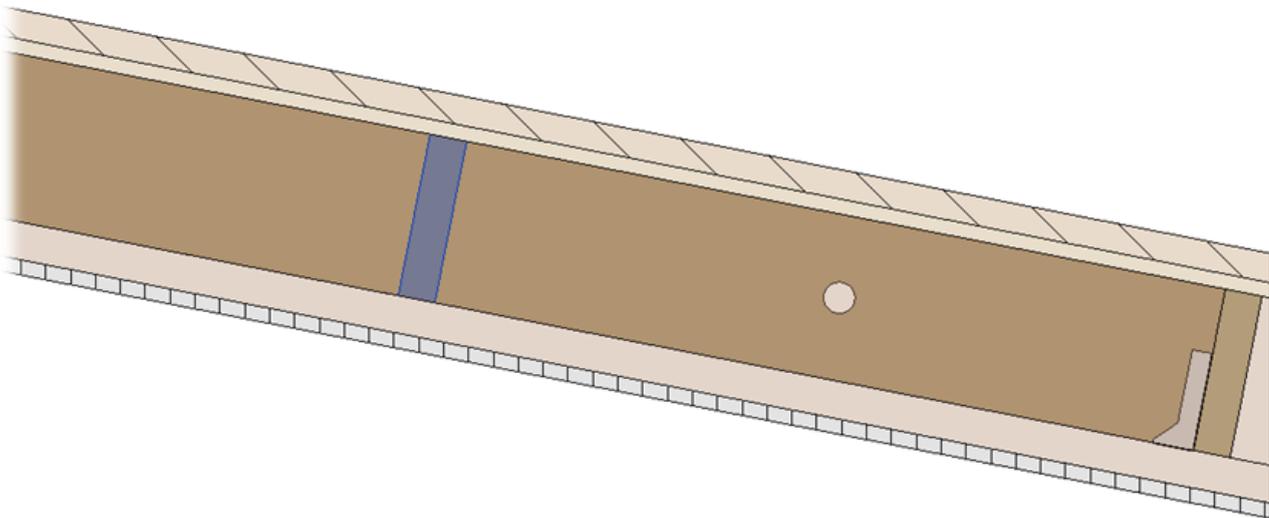
Spacing 1000

Number 1

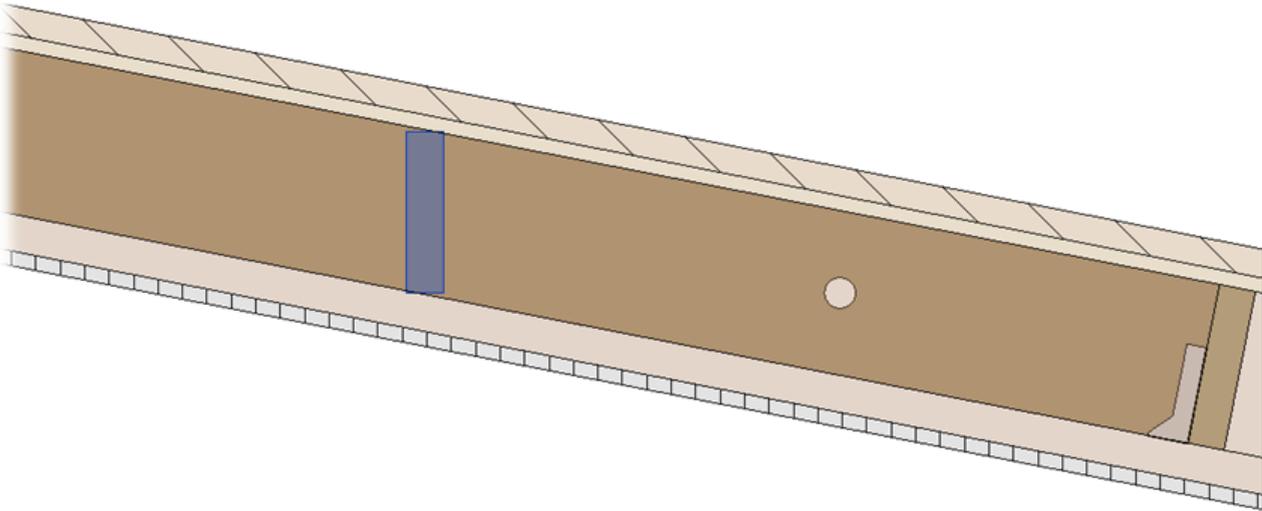
Measure to Center

Rotate by Slope – Joist/Rafter/Bridging can be rotated according to roof slope.

Example: **Rotate by Slope** is ON:

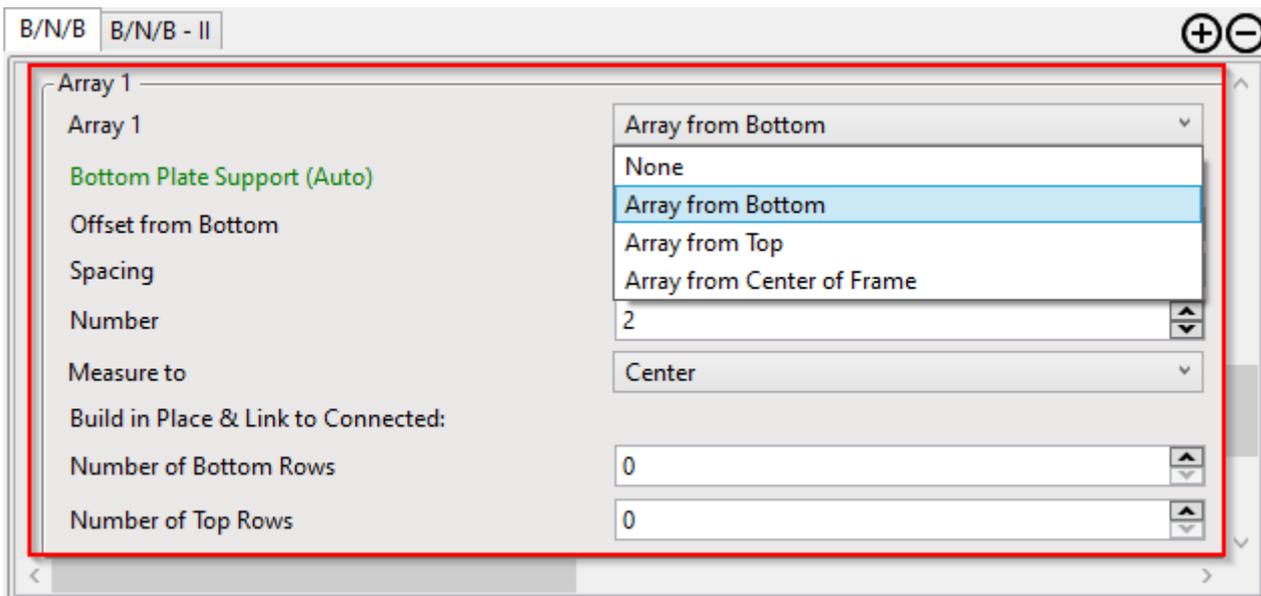


Example: **Rotate by Slope** is OFF:



Array1 or Array2

A set of rules for placing many blockings/noggings/bridgings.



Array 1 or **Array 2** – there are options to apply three array rules: **Array from Top**, **Bottom** or **Center** of the frame.

Top/Bottom Plate Support (Auto)

B/N/B B/N/B - II + -

Array 1

Array 1 Array from Bottom

Bottom Plate Support (Auto)

Offset from Bottom

Spacing

Number

Measure to Center

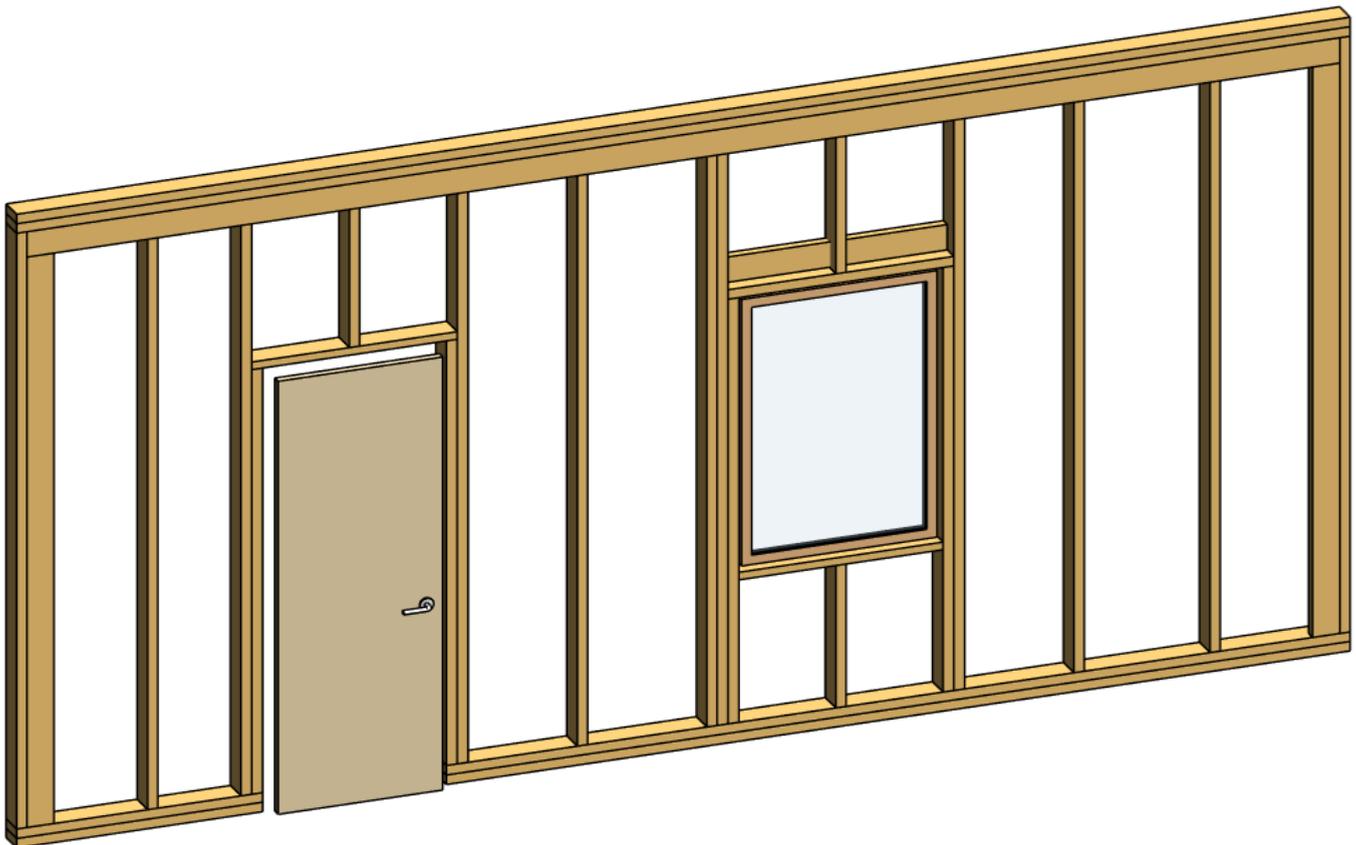
Build in Place & Link to Connected:

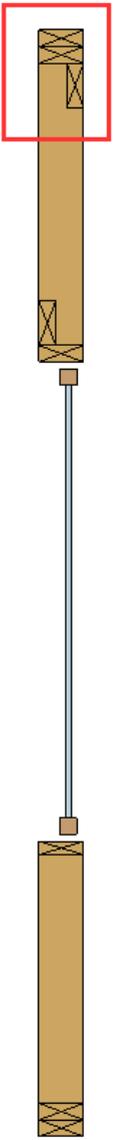
Number of Bottom Rows

Number of Top Rows

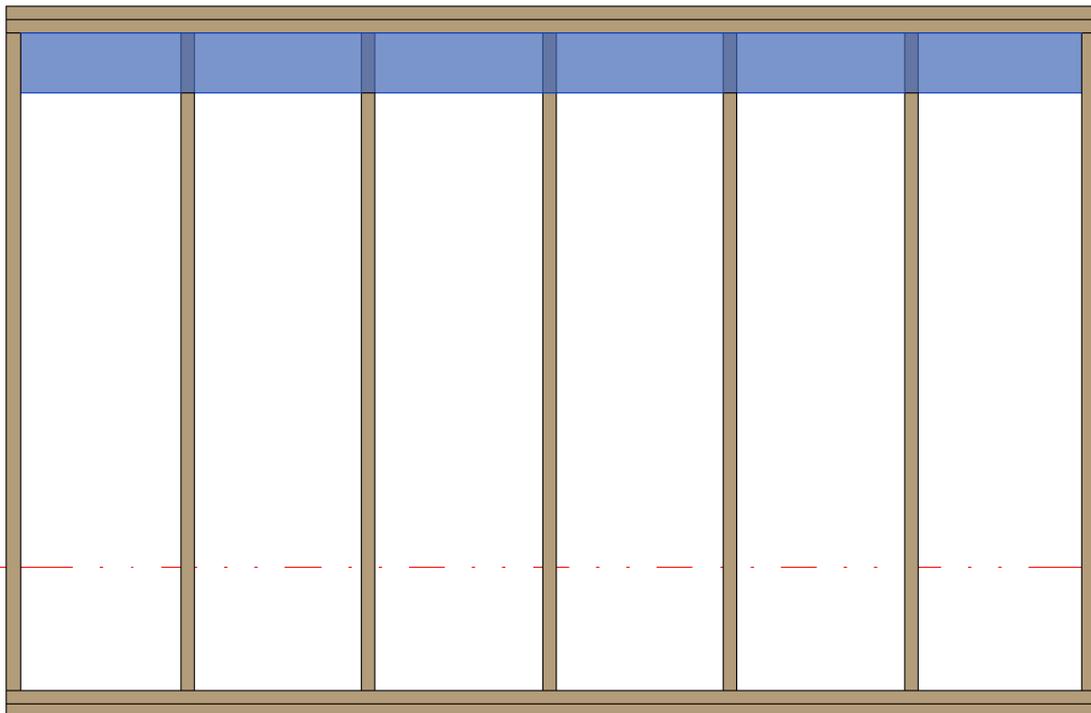
Top/Bottom Plate Support (Auto) – option to add top/bottom plate supports and align with top/bottom plate automatically.

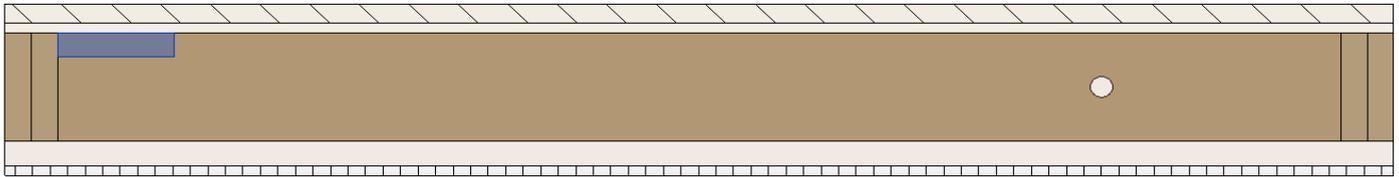
In such cases, the **Offset from Top** option is not available because it is calculated automatically.





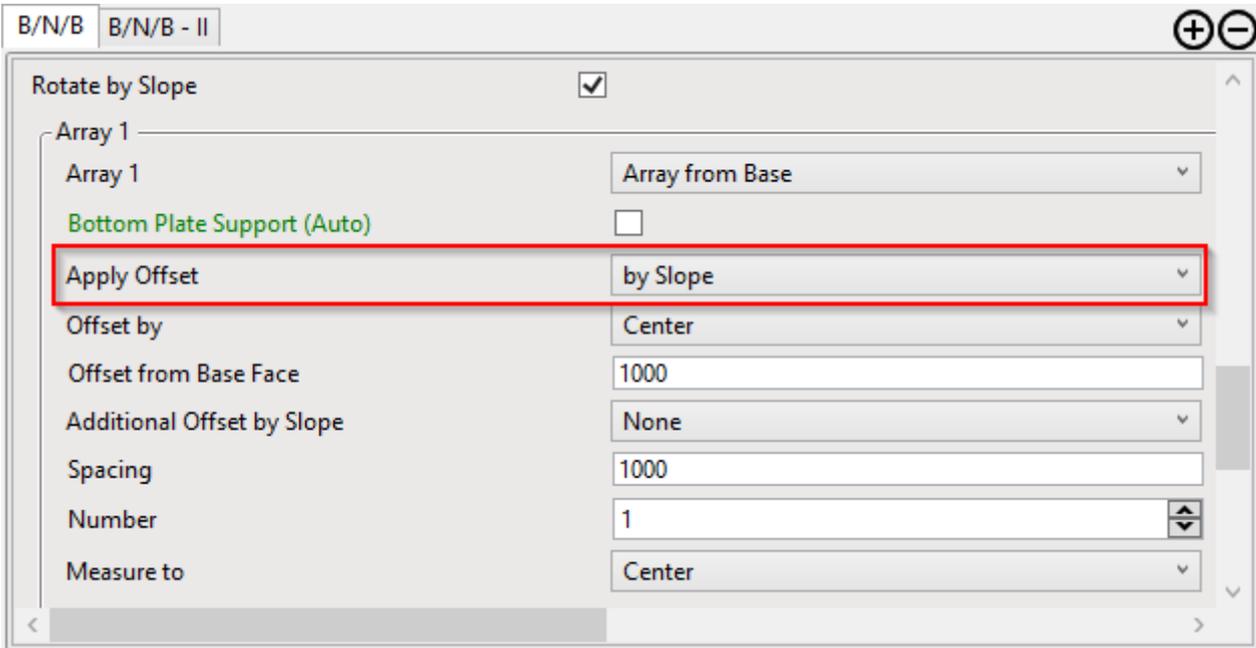
One more example:



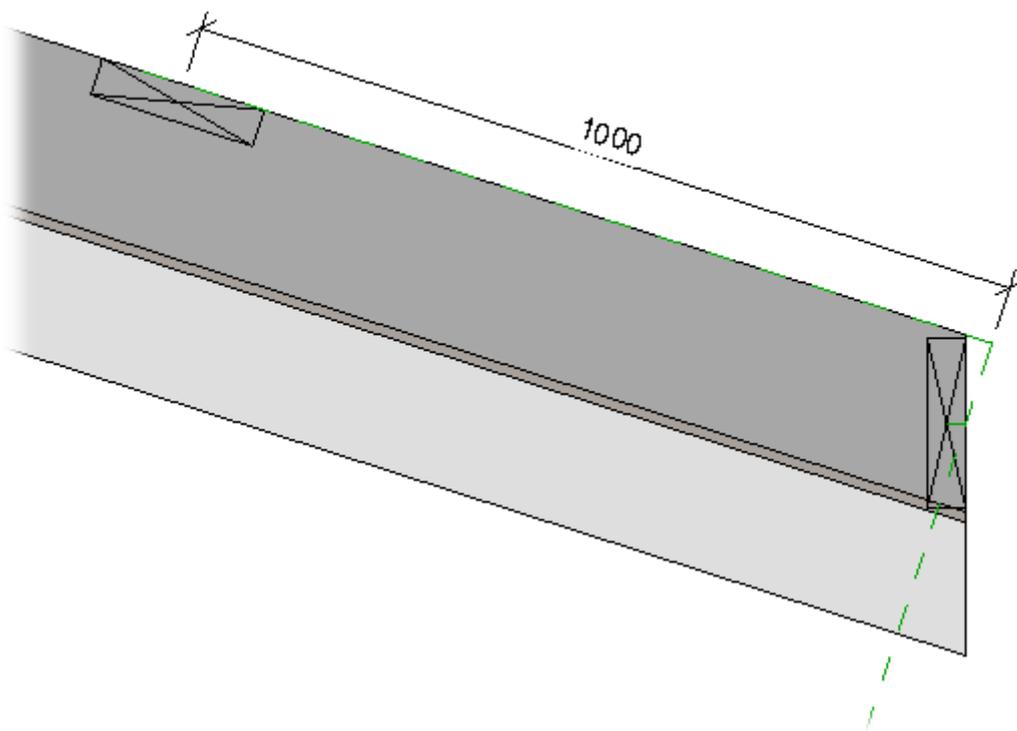


Apply Offset – different options for measuring offsets.

*Example, bridging offset is applied **by Slope** and measured from center to center:*



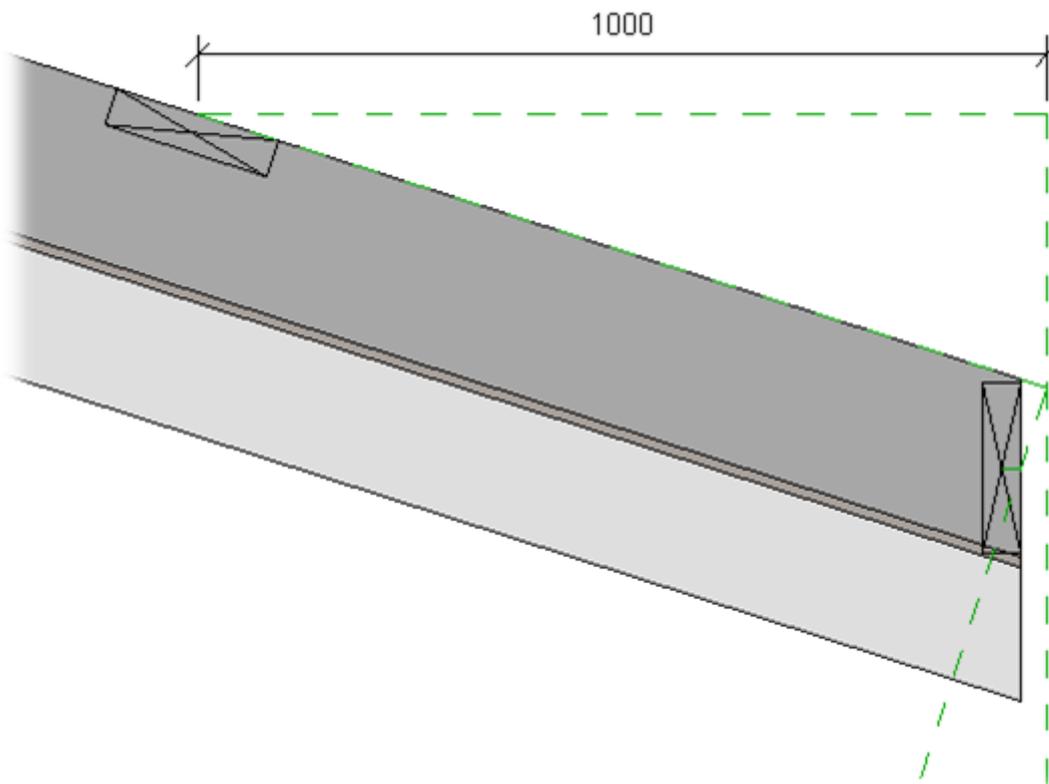
Result:



*Example, bridging offset is applied **Horizontally** and measured from center to center:*

Array 1	
Array 1	Array from Base
Bottom Plate Support (Auto)	<input type="checkbox"/>
Apply Offset	Horizontally
Offset by	Center
Offset from Base Face	1000
Additional Offset by Slope	None
Spacing	1000
Number	2
Measure to	Center
Build in Place:	
Number of Base Rows	0
Number of End Rows	0

Result:

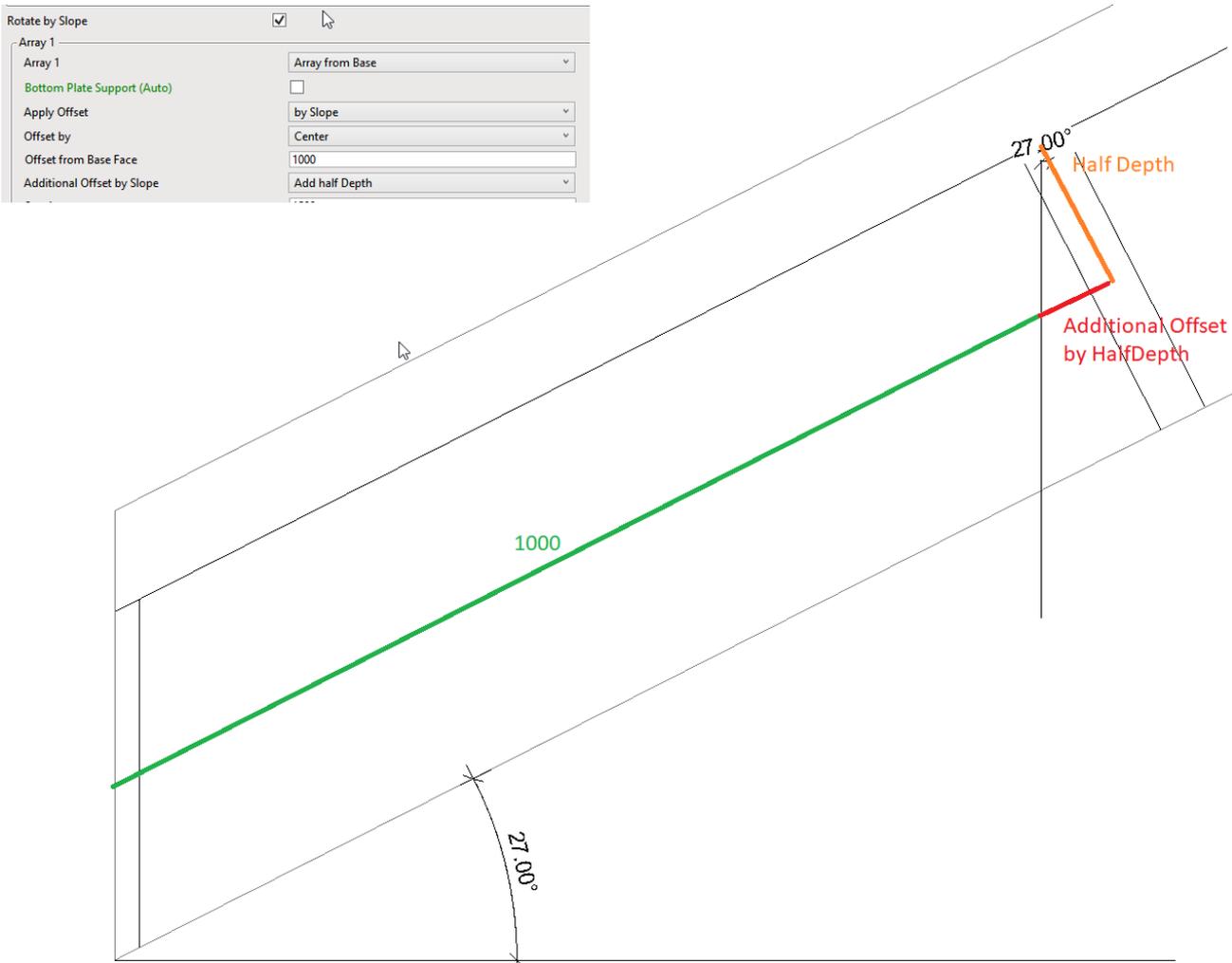


Additional Offset by Slope – additional offset by slope for more accurate bridging placing.

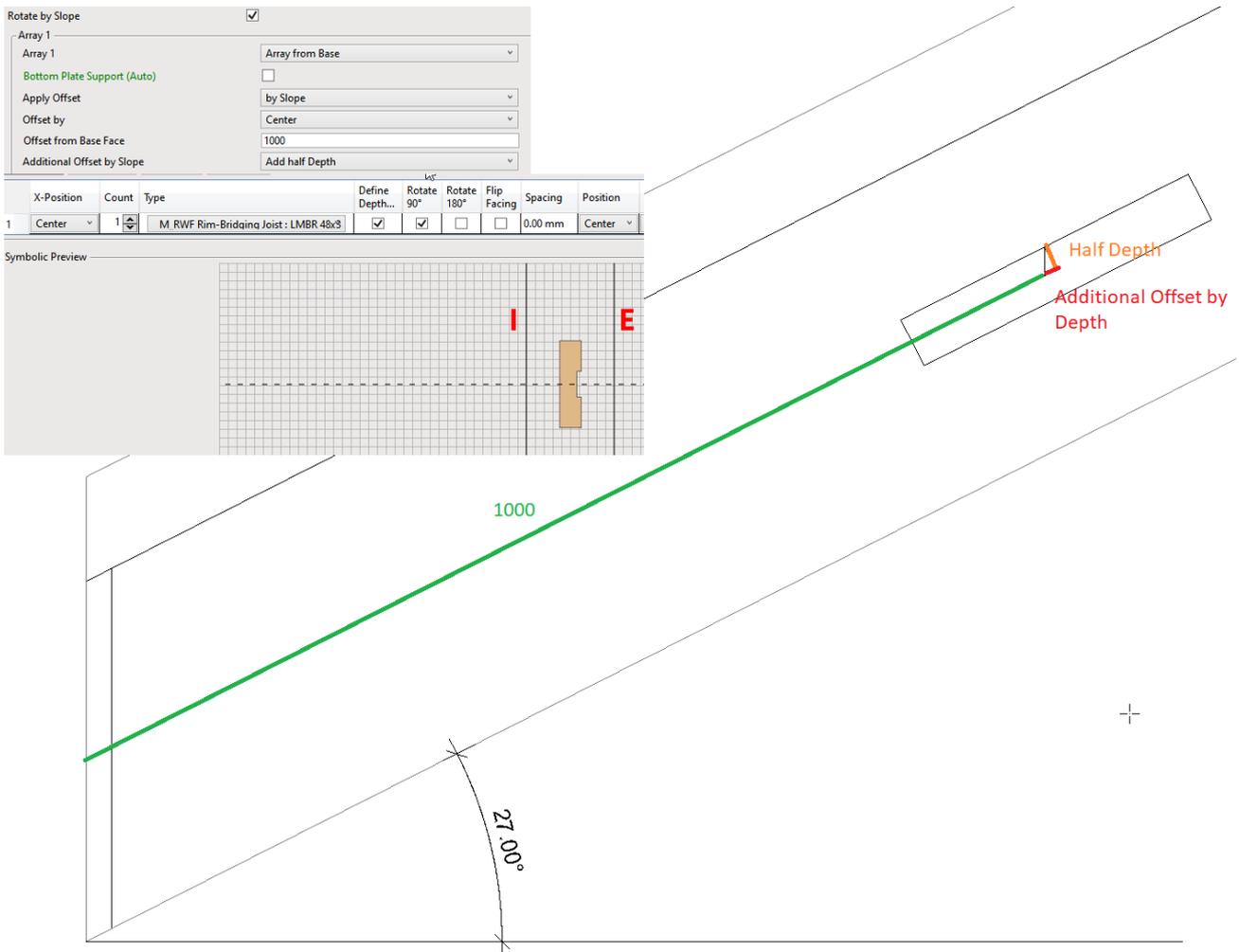
Array 1

Array 1	Array from Base
Bottom Plate Support (Auto)	<input type="checkbox"/>
Apply Offset	by Slope
Offset by	Top
Offset from Base Face	1500
Additional Offset by Slope	None
Spacing	None
Number	Add half Depth
Measure to	Add Depth
Build in Place:	Center
Number of Base Rows	0
Number of End Rows	0

Example, when **Offset from Base Face** = 1000 and **Additional Offset by Slope** = Add half Depth:



Example, when **Offset from Base Face** = 1000, **Additional Offset by Slope** = Add half Depth and bridging is rotated 90°:

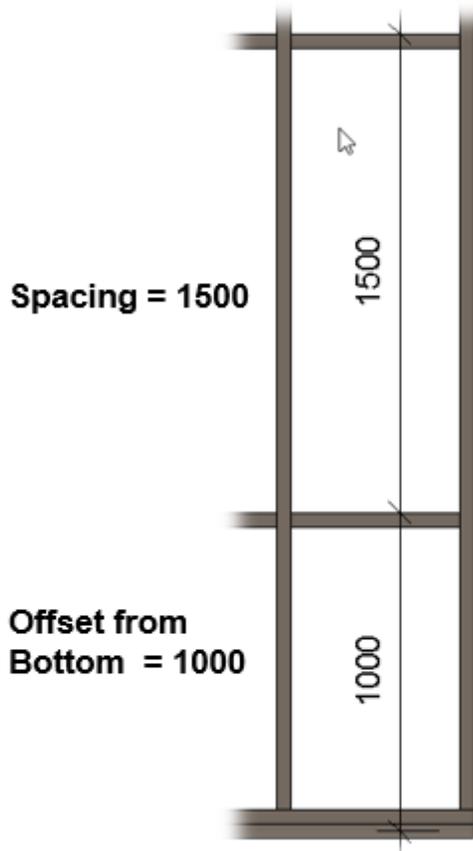


Offset from Top/Bottom – nogging offset from top or bottom plate top face.

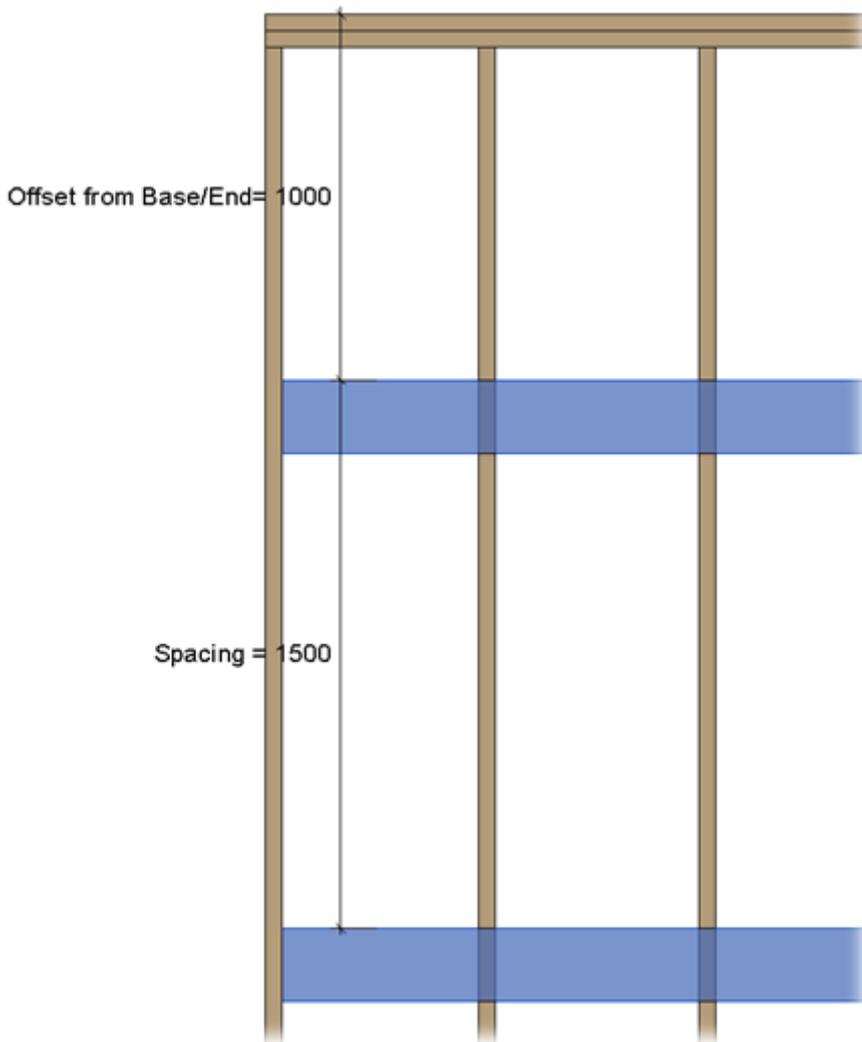
Spacing – spacing between rows of noggings.

Number – the number of bridging/nogging/blocking rows.

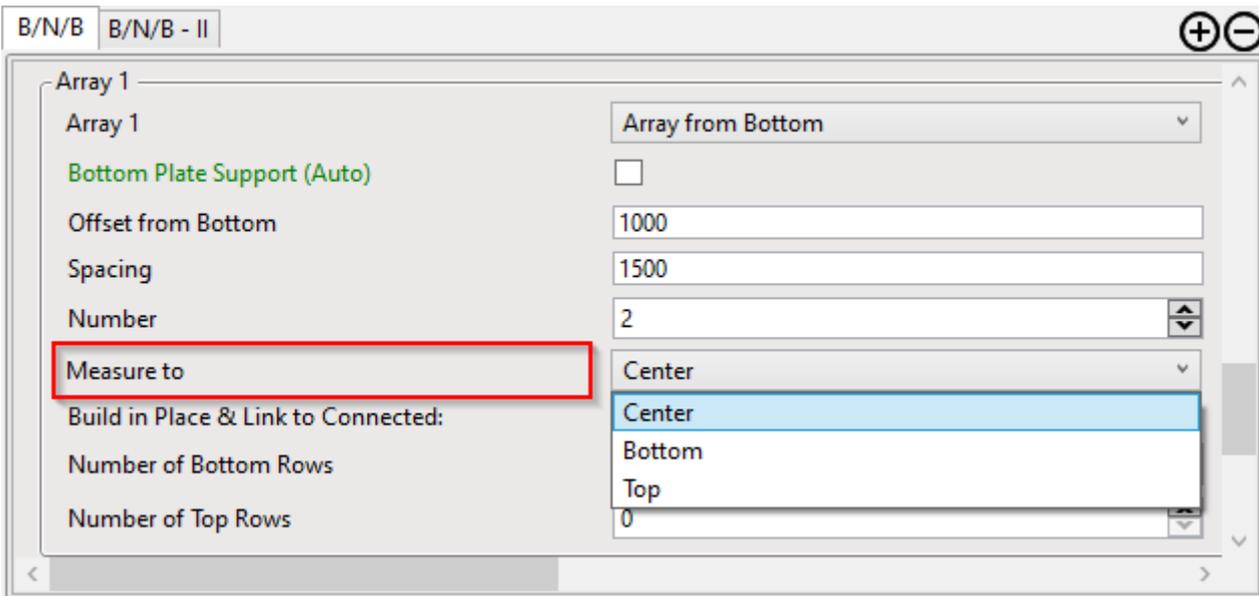
Example 1:



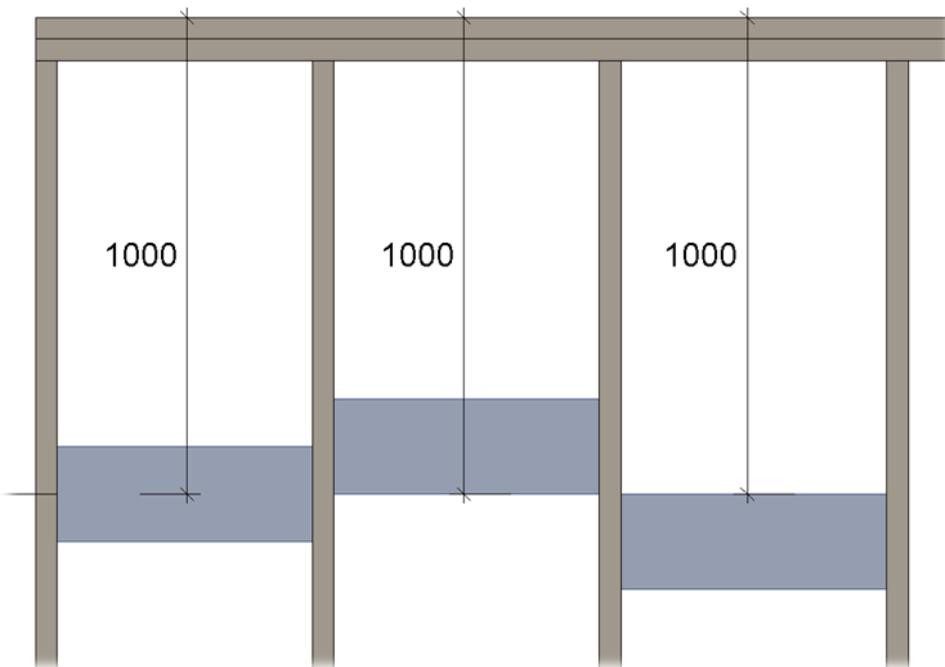
Example 2:



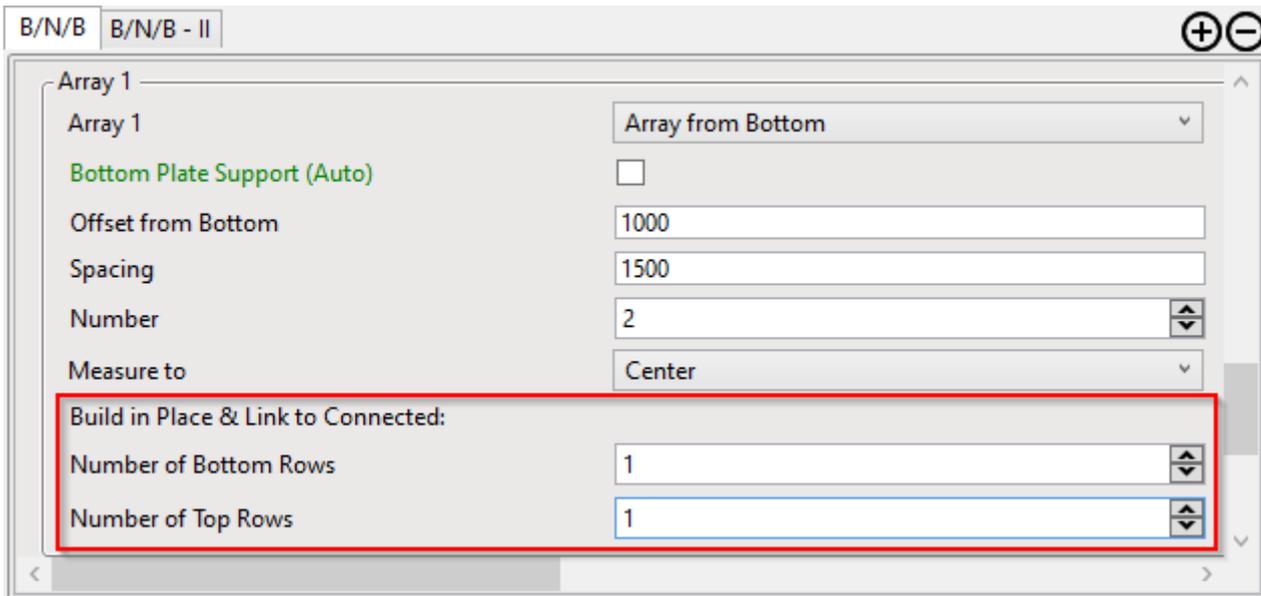
Measure to



Measure to – measures the offset and spacing to bridging/nogging/blocking top/bottom or center.

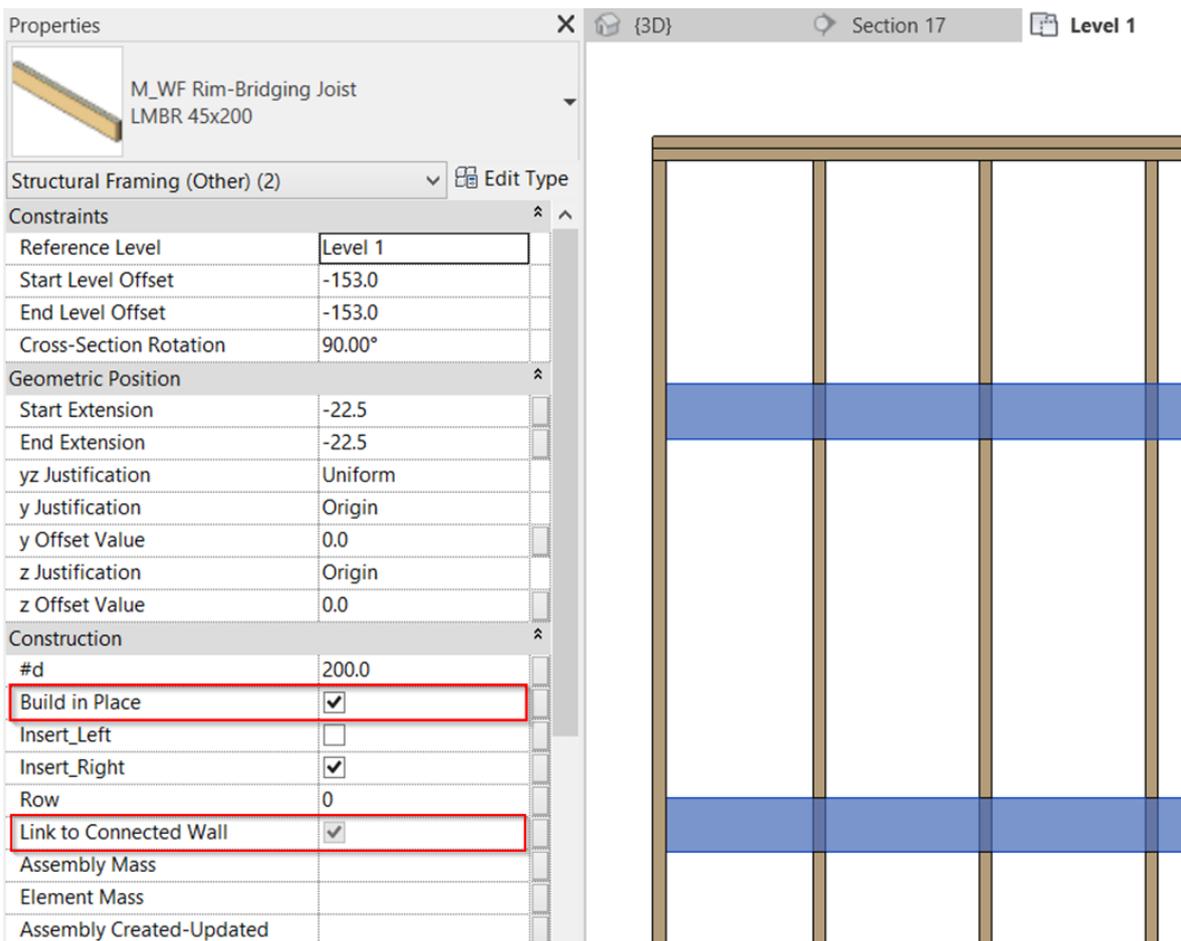


Build in Place & Link to Connected



Build in Place – writes Yes/No information into the blocking/nogging/bridging instance parameter if it is build-in-place or is prefabricated with the whole wall frame. Later this parameter can be used in schedules or view filters.

Link to Connected – choose this option if end stud/joist is near wall corner and the element should be prefabricated and connected to an intersecting wall.



Example with wood roof:

The screenshot displays a 2D framing diagram on the left and a Properties panel on the right. The diagram shows a roof structure with a horizontal board highlighted in blue. The Properties panel is titled 'Properties' and contains the following information:

- Object Name:** L_Roof_Frame Horizontal Board (LMBR 1x5)
- Category:** Structural Framing (Other) (1)
- Constraints:**
 - Reference Level: Roof
 - Start Level Offset: 10.95
 - End Level Offset: 10.95
 - Cross-Section Rotation: 90.00°
- Geometric Position:**
 - Start Extension: 0.00
 - End Extension: 0.00
 - yz Justification: Uniform
 - y Justification: Origin
 - y Offset Value: 0.00
 - z Justification: Center
 - z Offset Value: 0.00
- Construction:**
 - Build in Place: (highlighted with a red box)
 - Lock Position:
 - #Calculated Cut Distance ...: 1.00

Bays

B/N/B B/N/B - II

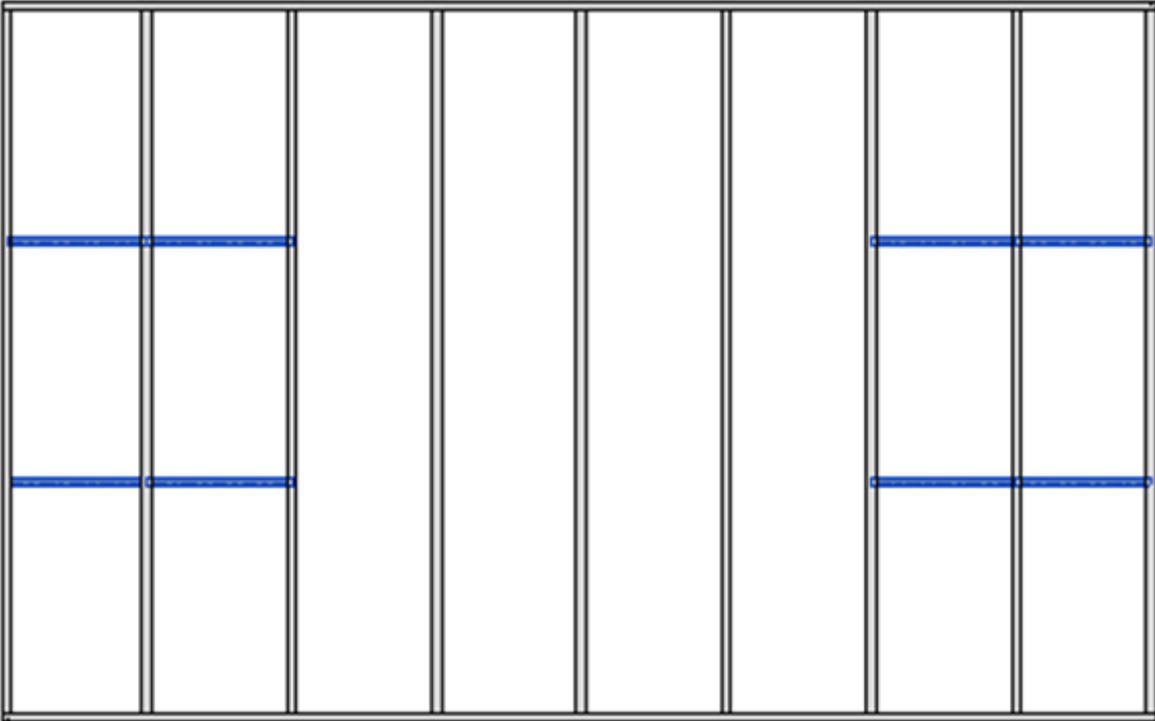
Bays

For First&Last Bays	<input checked="" type="checkbox"/>
Except First&Last Bays	<input type="checkbox"/>
Number of Bays	2
Begins from Number	1
Position of Bays	Both
Use Alternating Offset	<input type="checkbox"/>

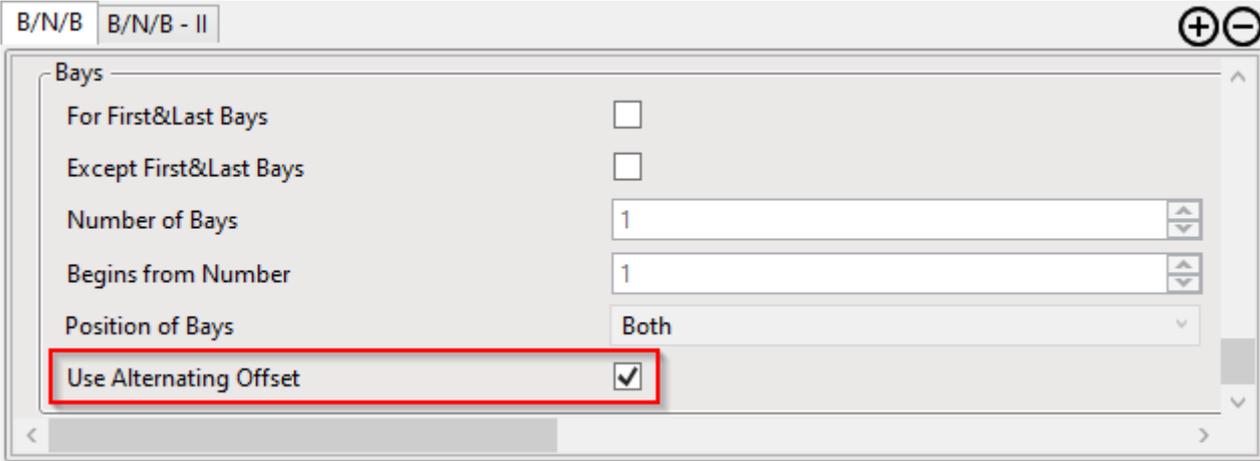
For First&Last Bays – select if bays should be applied for both sides of wall.

Number of Bays – number of bays from both wall sides.

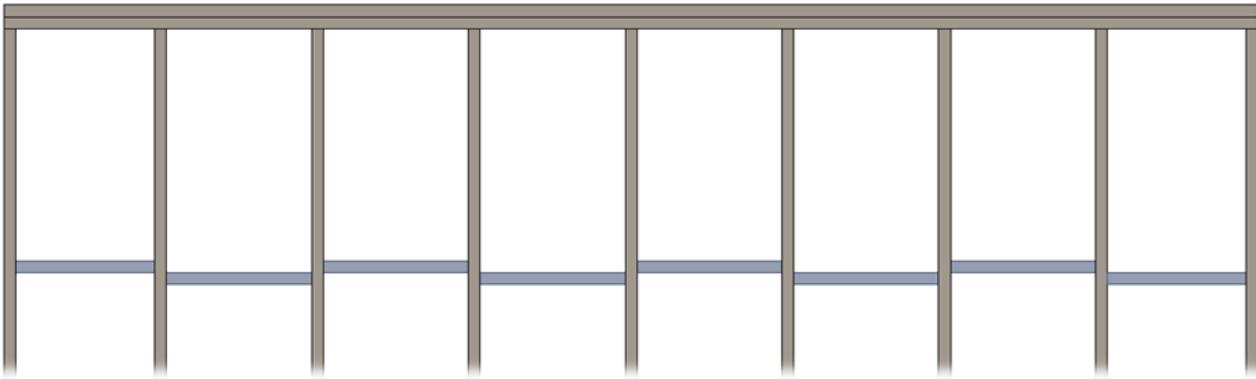




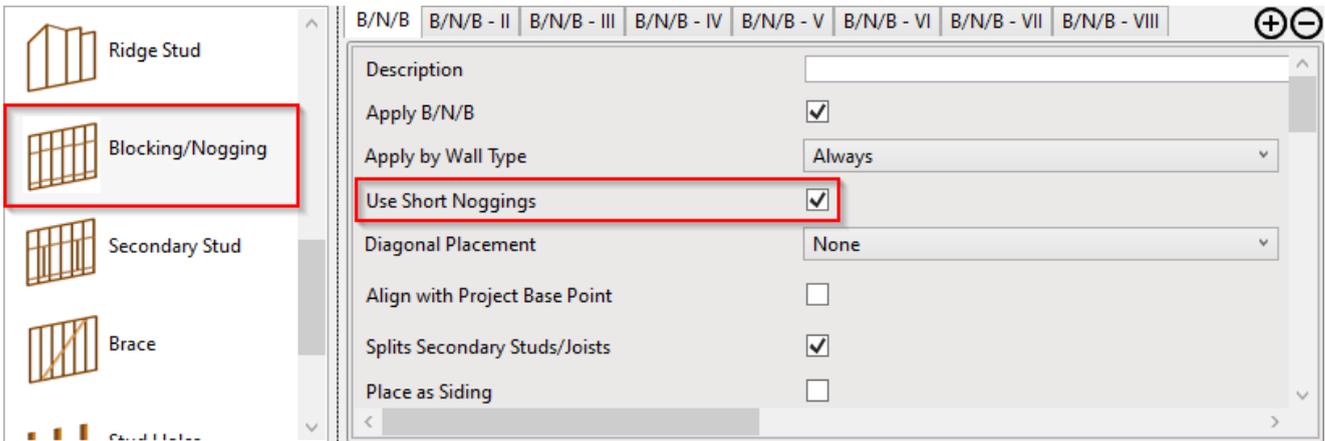
Use Alternating Offset



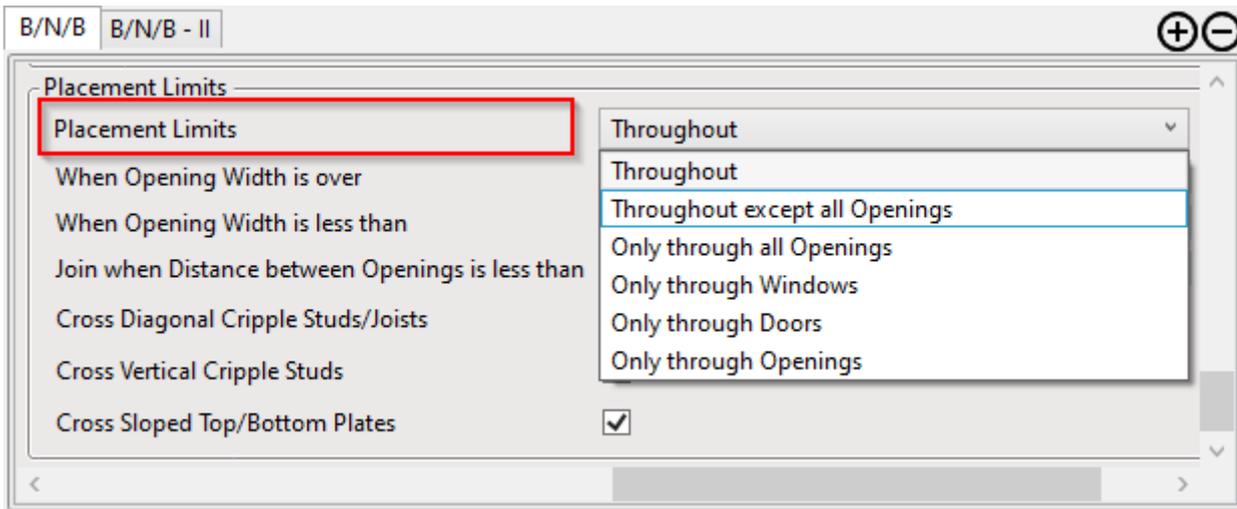
Use Alternating Offset – use linear (no offset) or alternating offset of nogging rows.



*Note: this option is possible when **Use Short Noggings** is selected:*

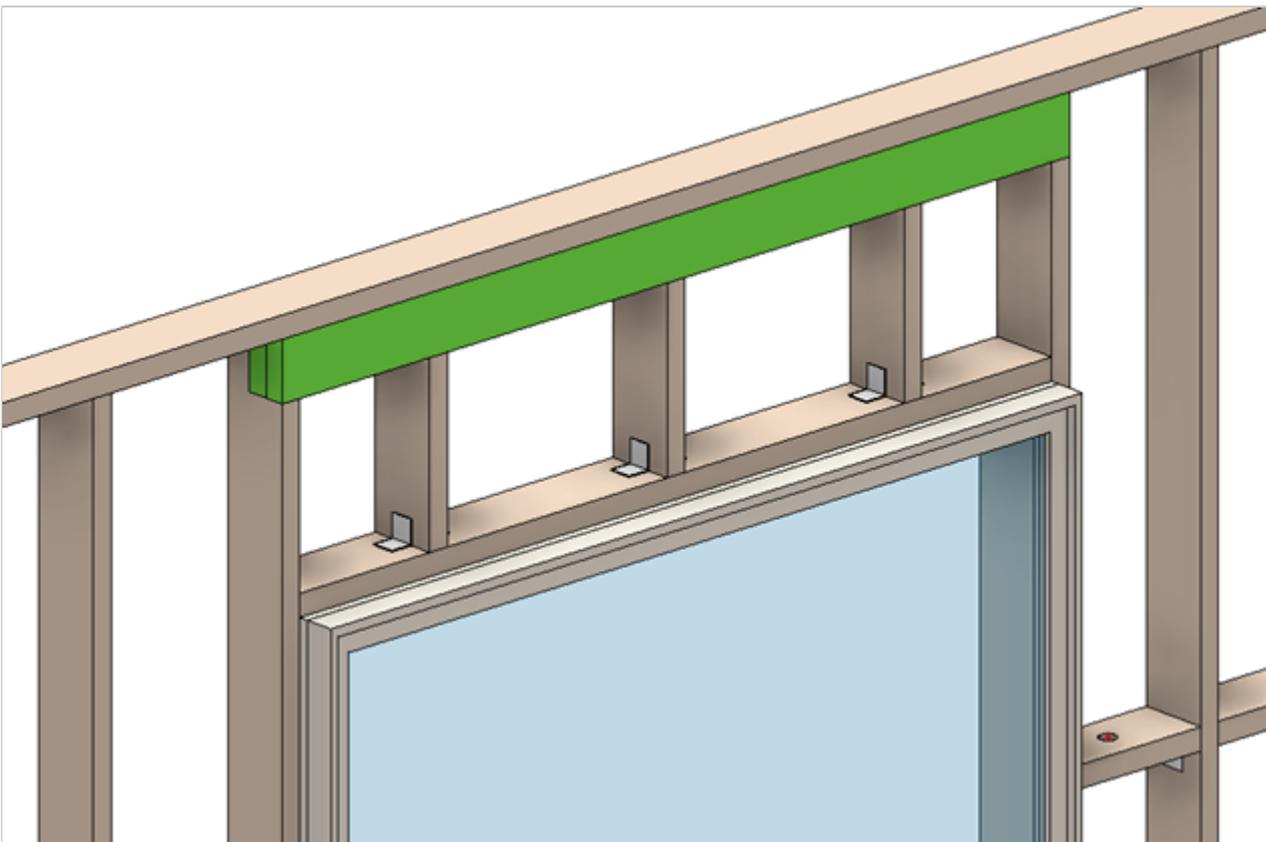


Placement Limits

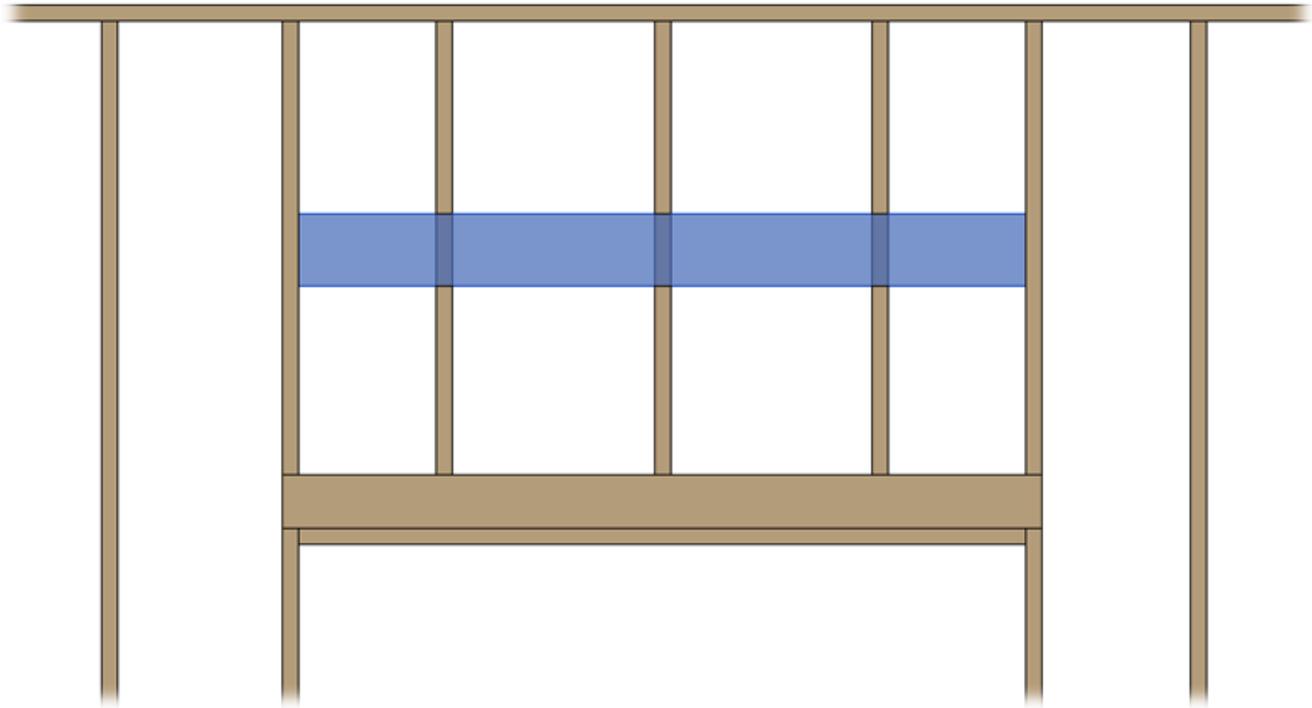


Placement Limits – Bridging/Nogging/Blocking placement. It can go: **Throughout** the frame, **Throughout except all Openings**, **Only through all Openings**, **Only through Windows**, **Only through Doors**, or **Only through Openings**.

Example: Here are two top headers added automatically only above the openings:

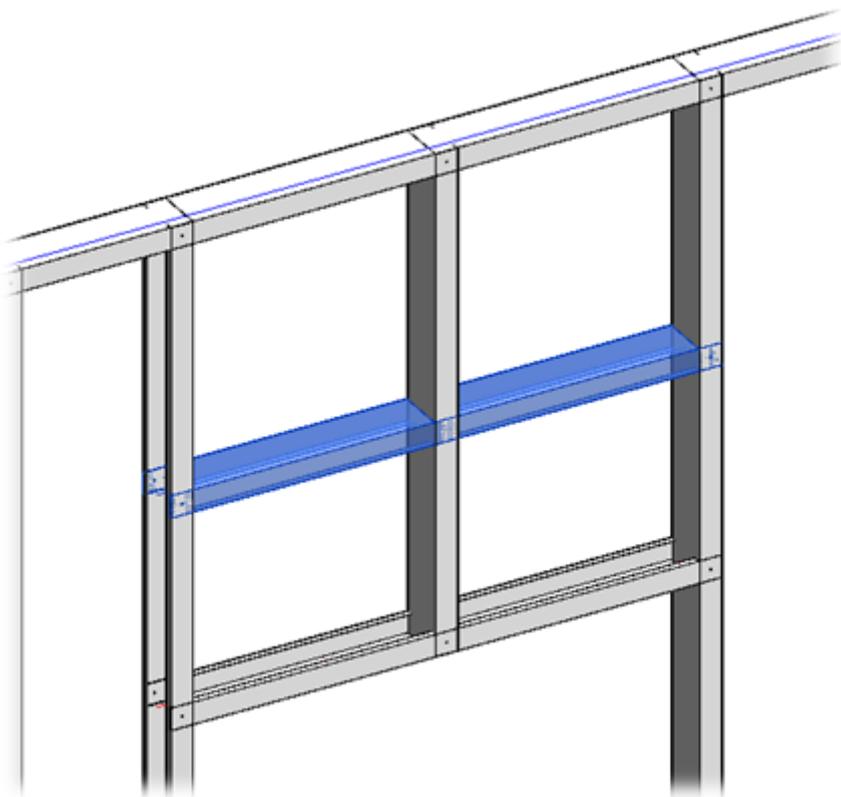


Example in front view:



Example with metal wall:

Here are two top headers added automatically only above the openings:



When Opening Width is over and **When Opening Width is less than** – here you can predefine the opening sizes for placing Bridging/Nogging/Blocking. For example, big openings can have additional bridging above or below.

Cross Diagonal Cripple Studs/Joist

B/N/B B/N/B - II + -

Placement Limits

Placement Limits Throughout

When Opening Width is over

When Opening Width is less than

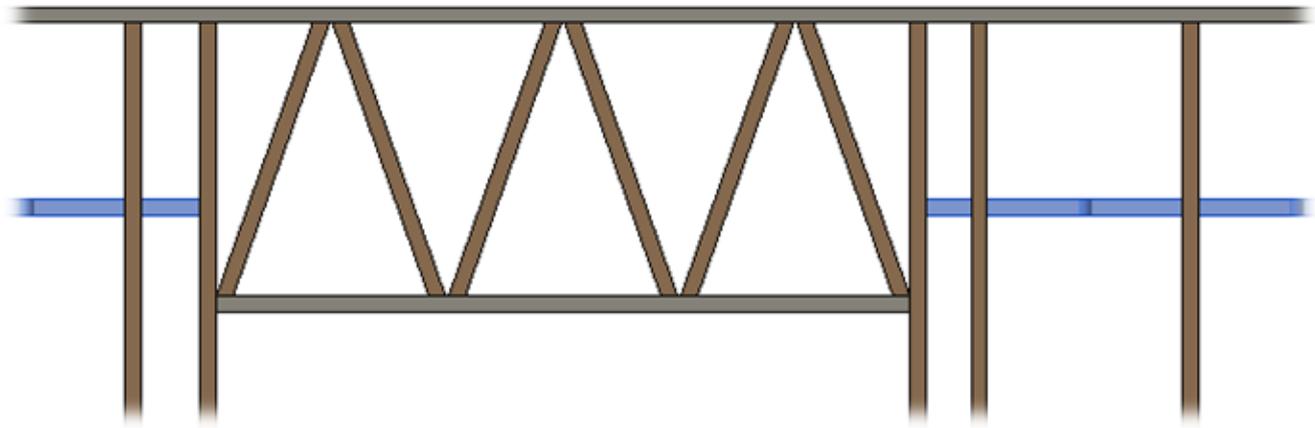
Join when Distance between Openings is less than

Cross Diagonal Cripple Studs/Joists

Cross Vertical Cripple Studs

Cross Sloped Top/Bottom Plates

Cross Diagonal Cripple Studs/Joists – select if Bridging/Nogging/Blocking should go through diagonal cripple studs.



Cross Sloped Top/Bottom Plates

B/N/B B/N/B - II + -

Placement Limits

Placement Limits	Throughout
When Opening Width is over	0
When Opening Width is less than	3048
Join when Distance between Openings is less than	0
Cross Diagonal Cripple Studs/Joists	<input checked="" type="checkbox"/>
Cross Vertical Cripple Studs	<input checked="" type="checkbox"/>
Cross Sloped Top/Bottom Plates	<input checked="" type="checkbox"/>

Cross Sloped Top/Bottom Plates – select if Bridging/Nogging/Blocking should go through places with sloped plates.

